Anesthesia and Analgesia for Farm Animals

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Search Strategy

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  Line Description
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  1.   anesthe? or anasthe? or anaesthe? or analges? or pain?
       or distress or tranquil? or anxiolytic? or
       neuroleptanalges? or paralytic? or hypnotic? or
       sedative? or neuromuscular(W)block? or hypothermia
  2.   cow or cows or cattle or sheep or pig? or swine or
       boar? or barrow? or gilt? or horse? or mare? or
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stallion? or livestock? or bull or bulls or lamb? or ram? or ewe?
3. pony or ponies or foal or colt? or chicken? or chick or chicks or poult? or hen? or rooster? or turkey? or capon? or duck? or geese? or goose or emu? or ostrich? or llama?
4. rhea? or goat? or equine? or bovine? or ovine? or buffalo? or catfish? or trout? or donkey? or mule or mules
5. S2 or S3 or S4
6. S1 and S5
7. S6/ti
8. S7 and PY=1989:1995

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1 NAL Call. No.: 41.8 Am3A
Accuracy of a reflectance pulse oximeter in anesthetized horses. Watney, G.C.G.; Norman, W.M.; Schumacher, J.P.; Beck, E.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Apr. American journal of veterinary research v. 54 (4): p. 497-501; 1993 Apr. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Blood; Oxygen; Measurement; Instruments; Accuracy

Abstract: The accuracy of a reflectance pulse oximeter was determined in 22 anesthetized horses, oximetric blood oxygen saturation was measured with the pulse oximeter probe attached to the mucosa of the mandible. Arterial blood oxygen saturation (Sao2) was calculated from arterial blood gas values and the equine blood oxygen dissociation curve. The mean +/- SD difference between oximetric blood oxygen saturation and Sao2 was -1.3 +/- 3.1% for values of (Sao2) ranging from 80 to 100%. The difference between oximetric blood oxygen saturation and Sao2 was influenced by Sao2, the mean arterial blood pressure, and preanesthetic medication administered, but not by age, sex, or body weight of the horse, individual animal effect, anesthetic induction or maintenance agent, procedure performed, body position, mode of lung ventilation, time of sampling, arterial pH, or carbon dioxide tension.

2 NAL Call. No.: 41.8 Am3
Actions of isoflurane and halothane in pregnant mares. Daunt, D.A.; Steffey, E.P.; Pascoe, J.R.; Willits, N.; Daels, P.F. Schaumburg, Ill. : The Association; 1992 Nov01. Journal of the American Veterinary Medical Association v. 201 (9): p. 1367-1374; 1992 Nov01. Includes references.

Language: English

Descriptors: Mares; Pregnancy; Inhaled anesthetics; Halothane; Anesthesia; Blood pressure; Respiration rate; Carbon dioxide; Oxygen; Duration; Recovery; Blood chemistry

3 NAL Call. No.: SF601.A46
Acupuncture for the treatment of chronic back pain in 200 horses. Martin, B.B. Jr; Klide, A.M.
Lexington, Ky. : The Association; 1992. Proceedings of the annual convention of the American Association of Equine Practitioners (37): p. 593-601; 1992. Meeting held December 1-4, 1991, San Francisco, California. Includes references.

Language: English

Descriptors: Horses; Acupuncture; Pain

4 NAL Call. No.: 41.8 Am3A
Acute effects of perineural administration of sodium hyaluronate on palmar digital neurectomy sites in horses.
Murray, R.C. \u Kansas State University, Manhattan, KS; Gaughan, E.M.; DeBowes, R.M.; Mosier, D.A.; Hoskinson, J.J.
Schaumburg, Ill. : American Veterinary Medical Association; 1994 Oct. American journal of veterinary research v. 55 (10): p. 1484-1489; 1994 Oct. Includes references.

Language: English

Descriptors: Horses; Hyaluronic acid; Neurectomy; Postoperative complications; Drug effects; Neoplasms; Nerve tissue; Inflammation; Swelling; Infusion

Abstract: Biaxial palmar digital neurectomy of all limbs was performed on 6 mixed-breed castrated adult male horses, using a standard guillotine method. Using a Teflon catheter, 20 mg (2 ml) of sodium hyaluronate (group 1), 2 ml of phosphate-buffered saline solution (group 2), or catheter placement with no infusion (group 3) was applied to 4 (group 1) or 2 (groups 2 and 3) of 8 incisions/horse. Treatments were administered after closure of the neurectomy incision, and the catheter was removed. Horses were evaluated daily for 1 week, then weekly over a 9-week period for evidence of lameness, swelling, and ultrasonographic changes. On week 9, horses were euthanatized and neurectomy sites were removed en bloc for histologic evaluation of axonal regrowth, inflammation, and fibrosis. Neither lameness nor sign of painful neuroma was observed clinically in any of the horses. Neurectomy eliminated cutaneous heel sensation in all limbs for the duration of the study. Swelling was evident at all neurectomy sites. There were no significant differences between treatment sites for measurement of pastern circumference or ultrasonographic evaluation of incisional swelling. Foci of ultrasonographic hyperechogenicity increased over time, but there was no significant difference in hyperechogenicity between treatment groups. Histologic evidence of neuroma formation was observed at all sites. Morphometric assessment of neuroma cross-sectional areas revealed no significant difference between the groups, as did subjective histologic assessment of neuroma density and fibrous tissue content. We conclude that there are no clinical, ultrasonographic, or histologic effects on neuroma formation and fibrosis at sites of palmar digital neurectomy associated with a single perineural administration of sodium hyaluronate or phosphate-buffered saline solution.

5 NAL Call. No.: SF910.P34A55 1992
Acute pain from castration and tail docking of lambs.
Molony, V.; Wood, G.N.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 385-395, 400-401; 1992. Includes references.

Language: English

Descriptors: Lambs; Pain; Tail; Cutting; Castration; Anesthesia; Local anesthesia; Xylazine; Morphine; Etorphine; Naloxone; Drug effects

6 NAL Call. No.: 41.8 R3224
Alleviation of postanesthetic hypoxemia in the horse.
McMurphy, R.M.; Cribb, P.H.
Ottawa : Canadian Veterinary Medical Association; 1989 Jan.

The Canadian veterinary journal v. 30 (1): p. 37-41; 1989 Jan. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Adverse effects; Hypoxia; Therapy; Oxygen; Partial pressure

7 NAL Call. No.: 442.8 J8222
Alterations in pituitary gland sensitivity in ram lambs to physiological doses of gonadotrophin-releasing hormone (GnRH), after divergent selection based on the luteinizing hormone response to a pharmacological GnRH challenge. Evans, N.P.; McNeilly, J.R.; Springbett, A.J.; Webb, R.
Colchester : The Journal; 1991 Nov.
Journal of reproduction and fertility v. 93 (2): p. 559-567; 1991 Nov. Includes references.

Language: English

Descriptors: Rams; Lambs; Lines; Gnrh; Lh; Hormone secretion; Anesthesia; Injectable anesthetics; Dosage effects; Line differences; Hypothalamus; Pituitary

8 NAL Call. No.: 41.8 R312
Analgesic activity and respiratory effects of butorphanol in sheep. Waterman, A.E.; Livingston, A.; Amin, A.
London : British Veterinary Association; 1991 Jul.
Research in veterinary science v. 51 (1): p. 19-23; 1991 Jul. Includes references.

Language: English

Descriptors: Sheep; Analgesics; Dosage; Pain; Respiratory gases; Mechanical stimulation; Heat tolerance

Abstract: The analgesic drug butorphanol tartrate has proved useful clinically in horses and dogs but its analgesic profile had not yet been investigated in sheep. This study was initiated to determine the thermal and mechanical antinociceptive activity of butorphanol (at the dose rates 0.05, 0.1 and 0.2 mg kg-1) in sheep. The drug produced significant analgesia in the thermal lest system, the duration of which was dose related but no significant elevation in mechanical pressure thresholds could be detected. In a further set of experiments the dose rate was increased to 0.4 mg kg-1 and mechanical testing was repeated. There was still no clinically significant elevation in pressure thresholds. At a dose rate of 0.2 mg kg-1 the drug had no detectable effect on respiratory blood gas tensions. Behavioural changes were severe if a dose rate of 0.2 mg kg-1 was exceeded.

9 NAL Call. No.: 41.8 V641
Analgesic and spasmolytic effects of dipyrone, hyoscine-N-butylbromide and a combination of the two in ponies. Roelvink, M.E.J.; Goossens, L.; Kalsbeek, H.C.; Wensing, T.
London : The Association; 1991 Oct26.
The Veterinary record : journal of the British Veterinary Association v. 129 (17): p. 378-380; 1991 Oct26. Includes references.

Language: English

Descriptors: Horses; Colic; Antiinflammatory agents; Parasympatholytics; Drug combinations; Pain; Spasms; Drug effects

10 NAL Call. No.: SF951.E62
The analgesic effect of ketoprofen for use in treating equine colic as compared to flunixin meglumine.
Betley, M.; Sutherland, S.F.; Gregoricka, M.J.; Pollet, R.A.
Santa Barbara, Calif. : Veterinary Practice Publishing Company; 1991 Jun. Equine practice v. 13 (6): p. 11-16; 1991 Jun. Includes references.

Language: English

Descriptors: Horses; Colic; Medical treatment; Analgesics; Flunixin; Pain; Drug effects; Antiinflammatory agents

11 NAL Call. No.: 41.8 R312
Analgesic effects of detomidine in thoroughbred horses with chronic tendon injury.
Chambers, J.P.; Livingston, A.; Waterman, A.E.; Goodship, A.E.
London : British Veterinary Association; 1993 Jan.
Research in veterinary science v. 54 (1): p. 53-56; 1993 Jan.
Includes references.

Language: English

Descriptors: Horses; Detomidine; Tendons; Legs; Trauma; Pain

Abstract: This study was undertaken to assess the analgesia provided by detomidine (20 micrograms kg-1 intravenously) in thoroughbred horses. Pain thresholds to a mechanical noxious stimulus were measured before and after a period of mild chronic pain in one foreleg. Detomidine was a good analgesic in control animals, their pain thresholds were significantly elevated for about 60 minutes. After injury, the injured leg had a significantly lower pain threshold and the intensity and duration of analgesia provided by detomidine were significantly reduced. The analgesia in the opposite (sound) leg was also reduced, indicating that there were both central and peripheral aspects to this increased sensitivity to painful stimuli. Detomidine deserves to be considered as a potent analgesic in the horse rather than a sedative with analgesic side effects.

12 NAL Call. No.: 41.8 AU72
Analgesic therapy of beak-trimmed chickens.
Glatz, P.C.; Murphy, L.B.; Preston, A.P.
Brunswick, Victoria : Australian Veterinary Association; 1992 Jan. Australian veterinary journal v. 69 (1): p. 18; 1992 Jan.
Includes references.

Language: English

Descriptors: Fowls; Debeaking; Analgesics; Animal welfare; Feed intake

13 NAL Call. No.: 41.8 R312
Analysis of the frequency spectrum of the equine electroencephalogram during halothane anaesthesia.
Johnson, C.B.; Young, S.S.; Taylor, P.M.
London : British Veterinary Association, 1960-; 1994 May.
Research in veterinary science v. 56 (3): p. 373-378; 1994 May. Includes references.

Language: English

Descriptors: Horses; Electroencephalograms; Halothane; Anesthesia; Recordings

Abstract: The electroencephalogram (EEG) has been used in human clinical anaesthesia as an indicator of cortical activity and as an indicator of the depth of anaesthesia. It would be useful if it provided a reliable indication of the depth of anaesthesia of horses. In this study anaesthesia was induced with thiopentone and maintained with halothane in nine ponies. The end tidal halothane concentration [P(E-Hal)] was monitored and 20 seconds of EEG were recorded at 0.8 per cent, 1.0 per cent and 1.2 per cent halothane, equivalent to the minimum alveolar concentration (MAC), 1.25 MAC and 1.5 MAC. Each 20 second block of data was divided into one second segments and averaged to give one second of averaged EEG from which a frequency spectrum was obtained by using a fast Fourier transformation. The power of the waveform at low frequency (1 to 3 Hz) was compared with that at higher frequency (9 to 11 Hz). The median frequency and 95th percentile (spectral edge) were also calculated. The spectral edge frequency had the best correlation with P(E-Hal).

14 NAL Call. No.: aZ5071.N3
Anesthesia and analgesia for farm animals, January 1987-January 1994. Allen, T.
Beltsville, Md., National Agricultural Library; 1994 Apr.
Quick bibliography series - National Agricultural Library (94-21): 84 p.; 1994 Apr.

Language: English

Descriptors: Livestock; Anesthesia; Analgesics; Pain

15 NAL Call. No.: SF914.A53 1990
Anesthesia & analgesia in swine.
Swindle, M.M.
Columbia, Md. : American College of Laboratory Animal Medicine, 1990? :.; 1990.
Anesthesia and analgesia in laboratory animals : proceedings -- 1990 Forum, American College of Laboratory Animal Medicine, Columbia Inn, Columbia, Maryland, May 3-6, 1990. p. 79-87; 1990. Includes references.

Language: English

Descriptors: Miniature pigs; Anesthesia; Analgesics

16 NAL Call. No.: SF601.A46
Anesthesia for the compromised or exhausted patient.
Riebold, T.W.; Schmotzer, W.B.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 509-518; 1989.
Meeting held December 4-7, 1988, San Diego, CA. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Exhaustion; Neuroleptics; Fluids; Blood pressure; Depth; Monitoring; Anesthetics

17 NAL Call. No.: SF601.A46
Anesthesia for the equine orthopedic patient.
Muir, W.W. III
Lexington, Ky. : The Association; 1992.
Proceedings of the annual convention of the American Association of Equine Practitioners (37): p. 721-733; 1992.
Meeting held December 1-4, 1991, San Francisco, California.
Includes references.

Language: English

Descriptors: Horses; Anesthetics; Hemodynamics; Postoperative complications

18 NAL Call. No.: SF911.V43
Anesthesia in the llama.
Riebold, T.W.; Kaneps, A.J.; Schmotzer, W.B.
Hagerstown, Md. : J.B. Lippincott Company; 1989 Sep.
Veterinary surgery v. 18 (5): p. 400-404; 1989 Sep. Includes references.

Language: English

Descriptors: Llamas; Anesthesia; Anesthetics

19 NAL Call. No.: SF601.V535
Anesthesia techniques in sheep and goats.
Ewing, K.K.
Philadelphia, Pa. : W.B. Saunders Company; 1990 Nov.
The Veterinary clinics of North America : food animal practice v. 6 (3): p. 759-778; 1990 Nov. In the series analytic: Advances in sheep and goat medicine / edited by M. C. Smith. Includes references.

Language: English

Descriptors: Sheep; Goats; Anesthesia; Anesthetics; Analgesics

20 NAL Call. No.: 41.8 AM3
Anesthetic and medical management of acute hemorrhage during surgery. Wagner, A.E.; Dunlop, C.I.
Schaumburg, Ill. : The Association; 1993 Jul01.
Journal of the American Veterinary Medical Association v. 203 (1): p. 40-45; 1993 Jul01. Includes references.

Language: English

Descriptors: Dogs; Cats; Horses; Hemorrhage; Surgery; Anesthesia; Medical treatment; Blood volume; Losses; Hematocrit; Blood proteins

21 NAL Call. No.: SF951.V47
Anesthetic complications in the horse.
Klein, L.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 665-692; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Equipment; Failure; Anesthetics; Ventilation; Complications; Cardiovascular system; Hypotension; Hypothermia; Hypoxia; Hyperthermia; Cardiac rhythm; Muscular diseases

22 NAL Call. No.: SF601.A46
Anesthetic considerations for dystocia and caesarean section in mares. Hodgson, D.S.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 543-547; 1989. Meeting held December 4-7, 1988, San Diego, CA. Includes references.

Language: English

Descriptors: Mares; Foaling; Anesthesia; Dystocia; Caesarean section; Techniques; Anesthetics

23 NAL Call. No.: 41.8 AM3
Anesthetic management of an incisional dehiscence in recovery following exploratory laparotomy in a horse.
Curtis, M.B.; Eicker, S.W.; Archer, R.M.; Lindsay, W.A.
Schaumburg, Ill. : The Association; 1992 Mar01.
Journal of the American Veterinary Medical Association v. 200 (5): p. 692-695; 1992 Mar01. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Laparotomy; Postoperative complications; Case reports

24 NAL Call. No.: 41.8 Am3
Anesthetic management of an incisional dehiscence in recovery following exploratory laparotomy in a horse.
Curtis, M.B. \u University of Wisconsin-Madison, Madison, WI; Eicker, S.W.; Archer, R.M.; Lindsay, W.A.
Schaumburg, Ill. : The Association; 1992 Mar01.
Journal of the American Veterinary Medical Association v. 200 (5): p. 692-695; 1992 Mar01. Corrects AGRICOLA accession number IND92017406 in which the publication year was incorrectly entered as 1991. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Laparotomy; Postoperative complications; Case reports

25 NAL Call. No.: 41.8 Am3
Anesthetic management of ostriches.
Cornick, J.L. \u Louisiana State University, Baton Rouge, LA; Jensen, J. Schaumburg, Ill. : The Association; 1992 Jun01.
Journal of the American Veterinary Medical Association v. 200 (11): p. 1661-1666; 1992 Jun01. Corrects AGRICOLA accession no. IND92038574 in which the volume was incorrectly entered as 20. Includes references.

Language: English

Descriptors: Ostriches; Anesthesia; Anesthetics; Heart rate; Respiration rate; Blood pressure; Blood; Gases; Complications

26 NAL Call. No.: 410.9 P94
Anesthetic potency and cardiopulmonary effects of enflurane, halothane, and isoflurane in goats.
Antognini, J.F.; Eisele, P.H.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1993 Dec. Laboratory animal science v. 43 (6): p. 607-610; 1993 Dec. Includes references.

Language: English

Descriptors: Goats; Anesthesia; Halothane; Inhaled anesthetics; Drug effects; Cardiovascular system; Respiratory system; Dosage; Hemodynamics; Blood; Gases; Adverse effects

Abstract: Anesthetic requirements, as defined by the minimum alveolar anesthetic concentration (MAC) that prevents gross, purposeful movement in 50% of animals, have not been

determined in goats. Therefore, we determined anesthetic potency of enflurane (N = 6), halothane (N = 8), and isoflurane (N = 7) in goats by using the tail clamp and dew-claw clamp as the noxious stimuli and then measured the cardiovascular and respiratory effects of these agents. The MAC was 2.0 +/- 0.4%, 1.3 +/- 0.1%, and 1.5 +/- 0.3% (mean +/- SD) for enflurane, halothane, and isoflurane, respectively. At 1 MAC, when ventilation was changed from controlled to spontaneous, blood pressure decreased in goats anesthetized with isoflurane (98 +/- 17 to 78 +/- 13 mm Hg) and halothane (95 +/- 10 to 83 +/- 14 mm Hg) but did not significantly change in goats anesthetized with enflurane; heart rate increased in goats anesthetized with halothane (117 +/- 12 to 127 +/- 10 beats/min) but was not significantly different in goats anesthetized with enflurane or isoflurane; and cardiac output increased in goats anesthetized with enflurane (5.70 +/-1.23 to 7.05 +/- 2.02 liters/min) and halothane (6.14 +/- 0.94 to 7.91 +/-2.45 liters/min) but not with isoflurane. During spontaneous breathing, respiratory depression was manifested by apnea in two animals and an elevated PaCO2:57 +/- 15 mm Hg, 55 +/- 13 mm Hg, and 59 +/- 14 mm Hg, respectively, for enflurane, halothane, and isoflurane. Minute ventilation during spontaneous breathing was approximately 50% of controlled ventilation for each anesthetic agent. We conclude that anesthetic requirements in goats are similar to those in other species; enflurane, halothane, and isoflurane are well tolerated during controlled ventilation; and respiratory depression makes these drugs less attractive during spontaneous breathing.

27 NAL Call. No.: 41.8 M69
Anesthetics and surgical techniques useful in the potbellied pig. Braun, W. Jr
Lenexa, Kan. : Veterinary Medicine Publishing Co; 1993 May05.
Veterinary medicine v. 88 (5): p. 441-447; 1993 May05.
Includes references.

Language: English

Descriptors: Miniature pigs; Anesthesia; Anesthetics; Surgical operations

28 NAL Call. No.: HV4711.A56 1989
Animal pain., 2nd ed.
Rollin, B.
Englewood Cliffs, N.J. : Prentice Hall; 1989.
Animal rights and human obligations / edited by Tom Regan, Peter Singer. p. 60-65; 1989. Includes references.

Language: English

Descriptors: Horses; Animal behavior; Animal welfare; Animal research; Laboratory animals; Pain; Castration; Suxamethonium

29 NAL Call. No.: 450 P697
Antiinflammatory, analgesic, and antipyretic effects of an aqueous extract of Erythraea centaurium.
Berkan, T.; Ustunes, L.; Lermioglu, F.; Ozer, A.
Stuttgart, W. Ger. : Georg Thieme Verlag; 1991 Feb.
Planta medica v. 57 (1): p. 34-37; 1991 Feb. Includes references.

Language: English

Descriptors: Turkey; Gentianaceae; Plant extracts; Pharmacology; Antiinflammatory agents; Analgesics; Antipyretics

30 NAL Call. No.: 41.8 Am3A
Antinociceptive effects of combining low doses of neuroleptic drugs and fentanyl in sheep.
Kyles, A.E.; Waterman, A.E.; Livingston, A.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Sep. American journal of veterinary research v. 54 (9): p. 1483-1488; 1993 Sep. Includes references.

Language: English

Descriptors: Sheep; Pain; Neuroleptics; Fentanyl; Droperidol; Drug combinations; Dosage; Intravenous injection; Injection

Abstract: Effects of low doses of the neuroleptic drugs droperidol and zuclopenthixol, combined with a subanalgesic dose of the opioid mu-agonist, fentanyl, on mechanical nociceptive thresholds were evaluated in sheep. Intravenously administered droperidol (5 micrograms/kg of body weight) did not induce any change in the nociceptive thresholds when administered alone, but caused marked increase in threshold responses when combined with a subanalgesic dose of fentanyl (5 micrograms/ kg). Similarly, a combination of iv administered zuclopenthixol (100 micrograms/kg) and fentanyl induced significant ($P < 0.05$) antinociceptive effects, whereas zuclopenthixol administered iv alone had no effect on the threshold responses. Intrathecal administration of a low dose of droperidol (5-microgram total dose) combined with iv administered fentanyl also increased mechanical thresholds significantly ($P < 0.05$). These results indicate that interactions exist between dopaminergic and opioid systems in the processing of nociceptive information and that these effects may, at least partially, be mediated spinally.

31 NAL Call. No.: SF910.P34A55 1992
Antinociceptive effects of intrathecal opioids and alpha 2-agonists in sheep. Livingston, A.; Waterman, A.E.; Bouchenafa, O.; Kyles, A. New York : Churchill Livingstone; 1992. Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 281-291, 312; 1992. Includes references.

Language: English

Descriptors: Sheep; Agonists; Opioids; Drug effects; Analgesics; Testing; Anesthesia; Dosage; Xylazine; Catheterization

32 NAL Call. No.: RS160.J6
Anxiolytic activity of Panax ginseng roots: an experimental study. Bhattacharya, S.K.; Mitra, S.K.
Limerick : Elsevier Scientific Publishers; 1991 Aug. Journal of ethno-pharmacology v. 34 (1): p. 87-92; 1991 Aug. Includes references.

Language: English

Descriptors: Panax pseudoginseng; Roots; Diazepam; Anxiety; Behavior; Rats

Abstract: The putative anxiolytic activity of the white and red varieties of ginseng, the root of Panax ginseng, was investigated in rats and mice using a number of experimental paradigms of anxiety and compared with that of diazepam. Pilot studies indicated that single-dose administration of ginseng had little to no acute behavioral effects, hence the two varieties of ginseng were administered orally at two dose levels twice daily for 5 days, while diazepam (1 mg/kg, i.p.)

was administered acutely. White and red varieties of ginseng (20 and 50 mg/kg) showed positive results when tested against several paradigms of experimental anxiety. Both were effective in the open-field and elevated plus-maze tests and reduced conflict behaviour in thirsty rats and footshock-induced fighting in paired mice. Ginseng also attenuated pentylenetetrazole-induced decrease in rat brain MAO activity, confirming its anxiolytic activity since this has been proposed to be an endogenous marker for anxiety. The effects induced by white and red ginseng (50 mg/kg X 5 days) were comparable to those induced by diazepam (1 mg/kg).

33 NAL Call. No.: 41.8 AM3A
Aortic catheterization in cattle via the costoabdominal artery and validation for progesterone and estradiol-17 beta sample collection. Haibel, G.K.; Guilbault, L.A.; Villeneuve, P.; Thatcher, W.W. Schaumburg, Ill. : American Veterinary Medical Association; 1989 Nov. American journal of veterinary research v. 50 (11): p. 1923-1925. ill; 1989 Nov. Includes references.

Language: English

Descriptors: Cattle; Aorta; Catheters; Abdomen; Arteries; Cannulation; Progesterone; Estradiol; Blood specimen collection

Abstract: The abdominal portion of the aorta was catherized in 27 cows. Local analgesia was achieved by infiltration of anesthetic agents. A 10-cm skin incision was made caudal and parallel to the 13th rib at the lateral border of the epaxial muscles. The dorsal costoabdominal artery was exposed at its first lateral cutaneous branch by careful dissection through fascial layers. A sterile polyvinyl catheter (1.52 mm OD) was inserted into the artery and was advanced 35 to 40 cm to the abdominal portion of the aorta. Catheter patency was maintained for up to 5 weeks. Concentrations of plasma progesterone and estradiol-17 beta in samples obtained from the abdominal portion of the aorta were similar to simultaneously obtained concentration in samples from the jugular vein before and after parturition.

34 NAL Call. No.: QP251.A1T5
Application of lumbosacral spinal anesthesia for ovine caesarian surgery and for vasectomy under field conditions. Scott, P.R. \u Veterinary Field Station, Midlothian, Scotland; Sargison, N.D.; Penny, C.D.; Pirie, R.S.
Newton, Mass. : Butterworth-Heinemann; 1994.
Theriogenology v. 42 (5): p. 891-893; 1994. Includes references.

Language: English

Descriptors: Ewes; Caesarean section; Lidocaine; Rams; Vasectomy; Conduction anesthesia; Preanesthetic medication; Xylazine; Postoperative complications; Paresis

Abstract: A 2% lignocaine solution infused at a dose of 2 mg/kg at the lumbosacral site gave excellent analgesia in 28 vasectomy operations and in 33 of 38 (87%) Caesarian operations at a dose of 4 mg/kg. Failure of the anesthetic technique in 4 sheep (6% of all operations) was associated with poor positioning of the ewe and incorrect identification of the epidural space. One fatality was recorded and was considered to result from lignocaine overdosage and the probable pooling of blood in the splanchnic vasculature. Pelvic limb paresis persisted for 2 to 4 h post epidural injection in all ewes, but no permanent paralysis was encountered. Lumbosacral epidural anesthesia gave excellent

analgesia for vasectomy, and was indicated for Caesarian surgery when a dystocia was associated with severe vaginal prolapse or the delivery of a fetal monster. Further work is needed to find an analgesic preparation which has a shorter duration than the 2% lignocaine solution.

35 NAL Call. No.: SF955.E6
Arterial-alveolar carbon dioxide tension difference and alveolar dead space in halothane anaesthetised horses.
Moens, Y.
Newmarket : R & W Publications; 1989 Jul.
Equine veterinary journal v. 21 (4): p. 282-284; 1989 Jul.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Halothane; Arteries; Carbon dioxide; Tension

36 NAL Call. No.: 41.8 R312
Assessment of pain associated with degenerative hip disorders in adult male turkeys.
Duncan, I.J.H.; Beatty, E.R.; Hocking, P.M.; Duff, S.R.I.
London : British Veterinary Association; 1991 Mar.
Research in veterinary science v. 50 (2): p. 200-203; 1991 Mar. Includes references.

Language: English

Descriptors: Turkeys; Hips; Degeneration; Joint diseases; Pain; Betamethasone; Physical activity

37 NAL Call. No.: 41.8 R312
Assessment of the welfare of food restricted male broiler breeder poultry with musculoskeletal disease.
Hocking, P.M.
London : British Veterinary Association, 1960-; 1994 Jul.
Research in veterinary science v. 57 (1): p. 28-34; 1994 Jul.
Includes references.

Language: English

Descriptors: Broilers; Restricted feeding; Skeletomuscular anomalies; Animal welfare; Pain; Locomotion; Betamethasone; Naloxone; Animal behavior; Sexual behavior; Male fertility; Age differences; Opioid peptides

Abstract: The general and sexual activity of food restricted male broiler breeder poultry was assessed for evidence of behavioral changes associated with musculoskeletal lesions. The activity and fertility of male birds given betamethasone (an anti-inflammatory steroid) or saline were compared in a two-period crossover experiment. Behavioural changes occurred and the birds' mating activity and fertility were decreased when they were given the steroid, but these effects were not associated with the presence of lesions. In a second experiment, there were no differences in sexual motivation between birds either with or without leg disorders. The birds were trained to walk down an alley for their food and the speed of walking was compared in a two-period crossover experiment. Betamethasone decreased their walking speed in period one and the carryover effect was significant in period two. Naloxone decreased the walking speed of birds with lesions more than of those without lesions. This effect was taken as evidence for analgesia by endogenous opioids and may help to explain the lack of response of the birds to the analgesic agent. The evidence that these food restricted male

broiler breeder birds experienced pain was equivocal.

38 NAL Call. No.: SF955.E6
Atelectasis causes gas exchange impairment in the anaesthetised horse. Nyman, G.; Funkquist, B.; Kvart, C.; Frostell, C.; Tokics, L.; Strandberg, A.; Lundquist, H.; Lundh, B.; Brismar, B.; Hedenstierna, G.
Newmarket : R & W Publications; 1990 Sep.
Equine veterinary journal v. 22 (5): p. 317-324; 1990 Sep.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Computed tomography; Atelectasis; Respiratory disorders; Gas exchange; Lungs

39 NAL Call. No.: SF911.V43
Atracurium as an adjunct to halothane-oxygen anesthesia in a llama undergoing intraocular surgery: a case report.
Donaldson, L.L.; Holland, M.; Koch, S.A.
Hagerstown, Md. : J.B. Lippincott Company; 1992 Jan.
Veterinary surgery v. 21 (1): p. 76-79; 1992 Jan. Includes references.

Language: English

Descriptors: Llamas; Anesthesia; Surgical operations; Eyes; Halothane; Oxygen; Case reports

40 NAL Call. No.: SF910.P34A55 1992
The balloon model for controlled abdominal pain in the horse.
Lowe, J.E.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 408-410, 432; 1992. Includes references.

Language: English

Descriptors: Horses; Surgical operations; Pain; Abdomen; Models; Balloons; Apparatus; Surgical equipment

41 NAL Call. No.: 49 J82
Behavioral and physiological effects of freeze or hot-iron branding on crossbred cattle.
Lay, D.C. Jr; Friend, T.H.; Randel, R.D.; Bowers, C.L.; Grissom, K.K.; Jenkins, O.C.
Champaign, Ill. : American Society of Animal Science; 1992 Feb. Journal of animal science v. 70 (2): p. 330-336; 1992 Feb. Includes references.

Language: English

Descriptors: Beef cattle; Branding; Freezing; Blood plasma; Epinephrine; Heart rate; Norepinephrine; Hydrocortisone; Stress; Skin temperature; Pain; Animal welfare

Abstract: Twenty-seven crossbred calves (1/2 Simmental, 1/4 Hereford, 1/4 Brahman) averaging 257 +/- 11 d of age were either hot-iron-branded (H), freeze-branded (F), or sham-branded (S). Calves were blocked for temperament, weight, and sex and were randomly assigned to day and order in which treatments were applied. To reduce stress from handling at treatment time, each calf was herded through the squeeze chute daily for 5 d before the experiment. Jugular cannulas were inserted in each calf 1 d before application of treatment. Blood samples and heart rate measures were obtained at -5, -3,

0, .5, 1, 3, 5, 10, 15, and 20 min after application of the treatments. Mean concentrations of plasma epinephrine (EPI) were higher for H calves at time .5 min than for either S or F calves (P = .10). To account for individual differences, prebranding heart rates and hormone concentrations were subtracted from subsequent samples and were also used to calculate a proportion for each subsequent sample. Analyses of subtracted values found that EPI concentrations were greater for H calves than for either S or F calves (P = .007) at .5 min postbranding. No other differences were found for the subtracted analyses. Analyses of proportion data also revealed that H calves had greater EPI than did either S or F calves (P = .027) at .5 min postbranding. Only three animals vocalized during branding, one H calf and two F calves. Despite the 5-d acclimation period, handling and restraint elevated plasma cortisol concentrations and heart rate. Because restraint elevated physiological indicators of stress, possible treatment differences may have been masked. The greater epinephrine response experienced by H calves indicates a higher momentary pain sensation than that experienced by either S or F calves.

42 NAL Call. No.: QL750.A6
Behavioural evidence for persistant pain following partial beak amputation in chickens.
Gentle, M.J.; Waddington, D.; Hunter, L.N.; Jones, R.B.
Amsterdam : Elsevier Science Publishers, B.V.; 1990 Aug.
Applied animal behaviour science v. 27 (1/2): p. 149-157; 1990 Aug. Includes references.

Language: English

Descriptors: Hens; Debeaking; Pain; Behavior change; Drinking water; Temperature

43 NAL Call. No.: 41.8 R312
Behavioural responses of lambs of three ages in the first three hours after three methods of castration and tail docking.
Molony, V.; Kent, J.E.
London : British Veterinary Association, 1960-; 1993 Sep.
Research in veterinary science v. 55 (2): p. 236-245; 1993 Sep. Includes references.

Language: English

Descriptors: Lambs; Castration; Docking; Methodology; Veterinary equipment; Surgery; Age differences; Pain; Animal behavior

Abstract: The behavioural responses of groups of seven lambs were compared with control groups after castration and tail docking by rubber rings, application of a Burdizzo clamp in addition to a rubber ring and after surgical castration at five, 21 and 42 days. All methods at all ages produced changes in behaviour which were interpreted as indicative of considerable pain. The rubber ring groups showed most changes in behaviour at all ages. The rubber ring with Burdizzo groups showed least changes and some lambs in these groups showed much less response than others. The surgical groups showed some behavioural responses which were different, both qualitatively and quantitatively to those in other groups. It is concluded that indices used for recognition and assessment of acute pain received conditional support, that modification of the rubber ring with Burdizzo may provide the least painful method without local anaesthesia and that age had little effect on the responses.

44 NAL Call. No.: 41.8 Am3A
Benzocaine-induced methemoglobinemia attributed to topical application of the anesthetic in several laboratory animal species.
Davis, J.A.; Greenfield, R.E.; Brewer, T.G.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Aug. American journal of veterinary research v. 54 (8): p. 1322-1326; 1993 Aug. Includes references.

Language: English

Descriptors: Laboratory animals; Benzocaine; Adverse effects; Topical application; Methemoglobinemia; Species differences

Abstract: In a screening study, a common benzocaine-containing anesthetic was topically applied to the following species: dogs (n = 11), domestic shorthair cats (n = 38), Long-Evans rats (n = 22), Sprague-Dawley rats (n = 11), ferrets (n = 6), rhesus monkeys (n = 10), cynomolgus monkeys (n = 10), owl monkeys (n = 10), New Zealand White rabbits (n = 18), miniature pigs (n = 9), ICR mice (n = 4), C3H mice (n = 4), and C57BL/10SnJ mice (n = 24). All animals, except mice and rats, received a 2-second spray to the mucous membranes of the nasopharynx for an estimated dose of 56 mg. A 2-second spray to rodents' oral mucous membranes delivered too great a volume of fluid for these animals; therefore, an equivalent dose was applied to the oral mucosa membranes by use of a 23-gauge needle and syringe. Initial (baseline) blood samples, as well as 4 blood samples taken every 15 minutes after drug application, were analyzed for methemoglobin (MHb), using an oximeter. Positive MHb response (> 3 SD above baseline) was seen in individuals of all groups. The study was repeated in dogs several months later to confirm low response. Response to benzocaine spray was observed in most animals tested, with response peaking between 15 and 30 minutes after dosing. Positive MHb response ranged from 3.5 to 38%, was detected in > 95% of individual animals, and ranged from 15 to 60 minutes after drug administration. Responses were variable because of the screening nature of the study and the topical route of drug administration, but the highest responses were observed in rabbits and cats, and the lowest were seen in mice and dogs. Methemoglobin could be a confounding variable for several types of studies; investigators should consider this toxicity of benzocaine-containing topical anesthetics and use appropriate alternative methods or drugs (ie, lidocaine).

45 NAL Call. No.: 41.8 AM3
Bilateral arytenoid cartilage paralysis after inhalation anesthesia in a horse.
Abrahamsen, E.J.; Bohanon, T.C.; Bednarski, R.M.; Hubbell, J.A.E.; Muir, W.W. III
Schaumburg, Ill. : The Association; 1990 Nov15.
Journal of the American Veterinary Medical Association v. 197 (10): p. 1363-1365; 1990 Nov15. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Adverse effects; Paralysis; Larynx; Case studies; Peripheral nerves

46 NAL Call. No.: 41.8 R312
Biochemical and haematological changes following prolonged halothane anaesthesia in horses.
Steffey, E.P.; Giri, S.N.; Dunlop, C.I.; Cullen, L.K.; Hodgson, D.S.; Willits, N.
London : British Veterinary Association, 1960-; 1993 Nov.
Research in veterinary science v. 55 (3): p. 338-345; 1993

Nov. Includes references.

Language: English

Descriptors: Horses; Halothane; Anesthesia; Duration; Adverse effects; Hematology; Blood chemistry; Liver function; Renal function; Enzyme activity

Abstract: Six healthy horses were anaesthetised with halothane (1.2 times the horse minimal alveolar concentration) in oxygen for more than 12 hours. Serum bilirubin, aspartate aminotransferase, alkaline phosphatase and L-iditol dehydrogenase values were significantly ($P < 0.05$) increased for up to nine days after anaesthesia. These changes suggest an anaesthesia related liver dysfunction. Creatine kinase increased to an average of more than 1400 iu litre-1 24 hours after anaesthesia and this change is indicative of muscle cell disruption. Renal-associated biochemical results, (that is serum creatinine and inorganic phosphate concentrations) were significantly increased transiently and are indicative of reduced renal function during and immediately after anaesthesia. Plasma concentrations of eicosanoids (6-keto-PGF(1 alpha), PGF(2 alpha), PGE and thromboxane) following anaesthesia were not different from preanaesthetic values. The magnitude of liver and muscle cell related increases in serum enzyme activities resulting from prolonged halothane anaesthesia was in excess of that previously, reported for anaesthesia of shorter duration.

47 NAL Call. No.: 41.8 V643
Biopsy of the bovine mammary gland.
Knight, C.H.; Hillerton, J.E.; Teverson, R.M.; Winter, A.
London : Bailliere Tindall; 1992 Mar.
British veterinary journal v. 148 (2): p. 129-132; 1992 Mar.
Includes references.

Language: English

Descriptors: Dairy cows; Mammary glands; Biopsy; Milk yield

Abstract: A technique is described for biopsy of the bovine udder, employing sedation and local anaesthesia. Tissue samples of approximately 5 g were obtained by electrocautery from two quarters of the udder of a cow laterally recumbent. Care was taken to ensure complete haemostasis which was achieved by electrocoagulation and ligation. Postoperative recovery was rapid, and loss of yield was no greater in biopsied glands than in control glands of the same cow. Yield from all quarters returned to preoperative levels within 48 h.

48 NAL Call. No.: 41.8 AM3
Blood pressure response to tourniquet use in anesthetized horses. Copland, V.S.; Hildebrand, S.V.; Hill, T. III; Wong, P.; Brock, N. Schaumburg, Ill. : The Association; 1989 Oct15.
Journal of the American Veterinary Medical Association v. 195 (8): p. 1097-1103; 1989 Oct15. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Surgery; Veterinary equipment; Blood pressure

49 NAL Call. No.: 41.2 H198 1991 [no.35]
Blutdruckregistrierung wahrend der Halothannarkose bei Pferden im Rahmen von Kolikoperationen [Blood pressure monitoring during halothane anesthesia in colic operations on horses].
Komsthoft, Ute

Hannover : [s.n.],; 1991.
170 p. : ill. ; 21 cm. Summary in English. Includes bibliographical references (p. 137-160).

Language: German

50 NAL Call. No.: QL55.A1L3
A bone biopsy procedure for neonatal pigs.
Bobilya, D.J.; Maurizi, M.G.; Veum, T.L.; Allen, W.C.
London : Royal Society of Medicine Services; 1991 Jul.
Laboratory animals v. 25 (3): p. 222-225; 1991 Jul. Includes references.

Language: English

Descriptors: Piglets; Newborn animals; Bones; Biopsy; Animal models

Abstract: Neonatal pigs were used to develop a surgical biopsy procedure to remove bone tissue from the ilium of small animals, with potential application for infants and small children. While the neonatal pig was under general anaesthesia, a scalpel was used to make a punch incision down to the ilium. Then a Craig Biopsy Trephine was used to remove a core sample of the bone. The samples ranged from 5 to 15 mm in length and 2 to 3 mm in diameter, with an average dry weight of 34.4 mg. The samples were adequate for mineral (calcium and zinc) analysis in our laboratory and may be equally suitable for histological or biochemical analyses. Surgical trauma was minimal, which permitted each pig to be biopsied every 7 days for 5 weeks without adverse consequences.

51 NAL Call. No.: 41.8 AM3A
Cardiopulmonary effects of a tiletamine-zolazepam combination in sheep. Lagutchik, M.S.; Januszkiewicz, A.J.; Dodd, K.T.; Martin, D.G. Schaumburg, Ill. : American Veterinary Medical Association; 1991 Sep. American journal of veterinary research v. 52 (9): p. 1441-1447; 1991 Sep. Includes references.

Language: English

Descriptors: Sheep; Injectable anesthetics; Anesthesia; Heart; Lungs; Physiological functions

Abstract: To assess the effects on heart and lung function, a tiletamine-zolazepam (TZ) anesthetic combination was evaluated in 10 Dorset-type ewes. Ewes were randomly allotted to 2 equal groups. Ewes of groups 1 and 2 were given a single bolus of TZ (12 and 24 mg/kg of body weight, IV, respectively) at time zero. Hemodynamic, pulmonary, and ventilation variables were measured at 15-minute intervals to 120 minutes. Blood gas variables were evaluated at 5-minute intervals for the first 30 minutes, then at 15-minute intervals to 120 minutes. In all sheep, TZ administration induced rapid, smooth induction, with gradual and unremarkable recovery. Anesthesia duration was not significantly different between groups (mean +/- SD, 39 +/- 5 and 40 +/- 14 minutes for groups 1 and 2, respectively). Immediate drug effects included apnea, decreased mean arterial blood pressure, and arterial hypoxemia. Cardiac output was significantly decreased in both groups at all times after drug administration. Significant changes in group-1 ewes included increased pulmonary and systemic vascular resistances and decreased inspired minute ventilation, tidal volume, and respiratory airflow. Significant changes in group-2 ewes included increased systemic vascular resistance and decreased pulmonary arterial pressure, inspired minute ventilation, and respiratory airflow. Both drug dosages induced apneustic

breathing patterns and caused significant changes in arterial and venous blood hemoglobin concentrations and PCV. Tiletamine-zolazepam is useful for intermediate-duration anesthesia in sheep. However, because of alterations in cardiopulmonary function, its use at the dosages evaluated by us is not recommended in studies, in which minimal effects on heart and lung function are required, or in sheep with compromised heart or lung function.

52 NAL Call. No.: SF915.J63
Cardiopulmonary effects of ephedrine in halothane-anesthetized horses. Grandy, J.L.; Hodgson, D.S.; Dunlop, C.I.; Chapman, P.L.; Heath, R.B. Oxford : Blackwell Scientific Publications; 1989 Dec.
Journal of veterinary pharmacology and therapeutics v. 12 (4): p. 389-396; 1989 Dec. Includes references.

Language: English

Descriptors: Horses; Ephedrine; Halothane; Anesthesia; Cardiac output; Blood pressure

53 NAL Call. No.: SF955.E6
Cardiopulmonary effects of epidurally administered xylazine in the horse. Leblanc, P.H.; Eberhart, S.W.
Newmarket : R & W Publications; 1990 Nov.
Equine veterinary journal v. 22 (6): p. 389-391; 1990 Nov. Includes references.

Language: English

Descriptors: Horses; Cardiovascular system; Xylazine; Analgesics; Conduction anesthesia; Blood pressure

54 NAL Call. No.: 41.8 AM3A
Cardiopulmonary effects of position in conscious cattle. Wagner, A.E.; Muir, W.W. III; Grospitch, B.J.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Jan. American journal of veterinary research v. 51 (1): p. 7-10; 1990 Jan. Includes references.

Language: English

Descriptors: Cattle; Position; Heart rate; Respiration rate; Blood pressure; Blood ph; Gases; Blood

Abstract: The cardiopulmonary effects of 4 positions (standing, right lateral, left lateral, and dorsal recumbency) were evaluated in conscious cattle in which no sedatives or anesthetic drugs were given. Each position was maintained for 30 minutes, during which time there were no significant changes in heart rate, respiratory rate, mean arterial blood pressure, arterial pH, PaCO2, arterial base excess, or venous blood gas values. Significant decreases in PaO2 developed when cattle were in lateral positions and dorsal recumbency. Cardiac index was unchanged in all positions, except in dorsal recumbency at 30 minutes, when it was significantly decreased.

55 NAL Call. No.: 41.8 Am3A
Cardiopulmonary effects of positioning pregnant cows in dorsal recumbency during the third trimester.
Dunlop, C.I.; Hodgson, D.S.; Smith, J.A.; Chapman, P.L.; Tyler, L.M. Schaumburg, Ill. : American Veterinary Medical Association; 1994 Jan. American journal of veterinary research v. 55 (1): p. 147-151; 1994 Jan. Includes references.

Language: English

Descriptors: Cows; Pregnancy; Position; Uterus; Hemodynamics; Blood flow; Cardiovascular system; Respiratory system

Abstract: The uterine hemodynamic response to maternal positioning in dorsal recumbency was evaluated in 7 conscious pregnant cows during the third trimester. Anesthetic or sedative drugs were not administered. Uterine artery flow was measured, using a previously implanted ultrasonic flow probe. Catheters implanted in the uterine artery and vein were used for measurement of blood pressure and for blood sample collections. Heart rate, systemic arterial pressure, uterine arterial blood flow, arterial and venous oxygen and carbon dioxide tensions, and pH were measured in cows in standing position. Cows were cast with ropes and positioned in dorsal recumbency, then measurements were repeated at 15 and 30 minutes. Compared with standing measurements, dorsal recumbency caused 50% increase in heart rate and 44% increase in arterial blood pressure. Uterine artery flow did not change significantly. Despite increased ventilation, arterial oxygenation was reduced during dorsal recumbency. There were minimal differences between measurements at 15 and 30 minutes of dorsal recumbency.

56 NAL Call. No.: 41.8 AM3A
Cardiopulmonary effects of positive end-expiratory pressure in anesthetized, mechanically ventilated ponies.
Wilson, D.V.; Soma, L.R.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 May. American journal of veterinary research v. 51 (5): p. 734-739; 1990 May. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Cardiovascular system; Partial pressure; Respiratory gases; Oxygen; Adverse effects

Abstract: To investigate the cardiopulmonary effects of positive end-expiratory pressure (PEEP), values of 10, 20, and 30 cm of H2O, were applied to anesthetized, dorsally recumbent, ventilated ponies. After IV induction of general anesthesia, PEEP was superimposed on controlled ventilation with 100% oxygen, and changes in gas exchange and cardiac function were measured. Increasing values of PEEP in these ponies caused a linear increase in the mean (+/- SEM) functional residual capacity, from a control value (zero end-expiratory pressure) of 1.7 +/- 0.24 L to 2.2 +/- 0.31, 2.9 +/- 0.32 and 3.4 +/- 0.3 L at PEEP of 10, 20, and 30 cm of H2O, respectively ($P < 0.05$). Paralleling these changes, intrapulmonary shunt fraction decreased significantly ($P < 0.05$) from a control value of 12.9 +/- 0.5%, to 7.5 +/- 1.1 and 2.1 +/- 0.6%, at PEEP of 20 and 30 cm of H2O, respectively. Cardiac output was decreased by increasing values of PEEP, from control value of 11.7 +/-1.56 L/min to 9.9 +/- 1.51, 8.8 +/- 1.33 and 5.62 +/- 0.56 L/min at PEEP of 10, 20, and 30 cm of H2O, respectively. Related to decreasing cardiac output, tissue oxygen delivery also decreased as PEEP was increased, from control value of 2.0 +/- 0.09 L/min to 1.8 +/- 0.07, 1.6 +/- 0.06, and 1.03 +/- 0.04 L/min at PEEP of 10, 20, and 30 cm of H2O, respectively. Thus, the effects of increasing values of PEEP in these ponies included increased functional residual capacity and arterial oxygenation, but marked reduction in cardiac output, resulting in no improvement or decrease in total oxygen delivery. Although PEEP is useful for improving arterial oxygenation, the deleterious cardiovascular effects should be anticipated or ameliorated by use of volume loading and/or inotrope administration.

57 NAL Call. No.: SF955.E6
Cardiopulmonary effects of xylazine sedation in the foal.
Carter, S.W.; Robertson, S.A.; Steel, C.J.; Jourdenais, D.A.
Newmarket : R & W Publications; 1990 Nov.
Equine veterinary journal v. 22 (6): p. 384-388; 1990 Nov.
Includes references.

Language: English

Descriptors: Horses; Foals; Cardiovascular system; Xylazine; Analgesics

58 NAL Call. No.: SF910.P34A55 1992
Cardiorespiratory and MAC-reducing effects of alpha-2-adrenoreceptoragonists in horses.
Muir, W.W.; Wagner, A.E.; Hinchcliff, K.W.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 102-212; 1992. Includes references.

Language: English

Descriptors: Horses; Agonists; Analgesics; Drug effects; Anesthetics; Heart rate; Cardiovascular system; Respiratory system; Xylazine; Alpha-adrenergic receptors

59 NAL Call. No.: 41.8 R312
Cardiorespiratory responses to electrical stimulation of the buccal mucosa in ponies.
Young, S.S.
London : British Veterinary Association; 1990 Nov.
Research in veterinary science v. 49 (3): p. 268-274. ill; 1990 Nov. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Pain; Electrical stimulation; Responses; Respiratory system; Cardiovascular system; Mouth; Mucosa; Halothane; Injectable anesthetics; Blood pressure; Heart rate; Tidal volume; Lung ventilation

60 NAL Call. No.: 41.8 AM3A
Cardiovascular and respiratory effects of inspired oxygen fraction in halothane-anesthetized horses.
Cuvelliez, S.G.; Eicker, S.W.; McLauchlan, C.; Brunson, D.B.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Aug. American journal of veterinary research v. 51 (8): p. 1226-1231; 1990 Aug. Includes references.

Language: English

Descriptors: Horses; Halothane; Anesthesia; Oxygen; Respiratory system; Cardiovascular system

Abstract: Anesthesia of equids is associated with pulmonary dysfunction. Cardiovascular and respiratory effects of inhalation anesthetic agents and duration of anesthesia have been studied, using oxygen as the carrier gas. To our knowledge, the effects of inspired oxygen have not been determined. We studied the cardiovascular and respiratory effects of 2 inspired oxygen fractions (0.30 and > 0.85) in 5 laterally recumbent, halothane-anesthetized horses. Mean systemic arterial blood pressure, cardiac output, central venous pressure, pulmonary arterial pressure, arterial pH, and arterial base excess were similar in horses of the 2 groups

during 4 hours of anesthesia at constant end-tidal halothane concentration. End-tidal partial pressure of CO2, arterial partial pressure of CO2 and O2, and alveolar-to-arterial O2 tension difference were greater in horses exposed to the higher oxygen concentration. On the basis of the data obtained, we suggest that greater hypoventilation and ventilation/perfusion mismatch occur when horses are breathing high-oxygen fraction. Arterial partial pressure of O2 was not different between the 2 groups of horses after they were disconnected from the anesthesia circuit and allowed to breathe room air. Horses recovered from anesthesia without complications.

61 NAL Call. No.: 410.9 P94
Cardiovascular effects of a ketamine-medetomidine combination that produces deep sedation in Yucatan mini swine.
Vainio, O.M.; Bloor, B.C.; Kim, C.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1992 Dec. Laboratory animal science v. 42 (6): p. 582-588; 1992 Dec. Includes references.

Language: English

Descriptors: Miniature pigs; Anesthetics; Cardiovascular system

Abstract: Seven chronically instrumented Yucatan minipigs were deeply sedated with the combination of ketamine (10 mg/kg), a dissociative anesthetic, and medetomidine (0.2 mg/kg), an alpha 2-adrenoceptor agonist used as an animal sedative in Europe. Both drugs were drawn in the same syringe and administered in the left atrium via a previously inserted permanent catheter. As a result, hypertension (mean arterial pressure from 116 +/- 12 mmHg to 142 +/- 18 mmHg) occurred and was followed by bradycardia (from 107 +/- 22 bpm to 71 +/- 9 bpm). Concomitantly both the rate of increase in ventricular pressure (48%) and ventricular wan thickening fraction (37%) decreased, thus indicating some worsening of left ventricular function. Further, systemic vascular resistance increased (290%) resulting in a reduction in cardiac output from 1.8 +/- 0.7 l/minute to 0.4 +/- 0.3 l/minute. Also, left ventricular end diastolic pressure initially increased (maximum 10.2 +/- 10.8 mmHg) but returned to the control level in 5 minutes. In spite of an increase in respiratory frequency (3x), PaCO2 increased and PaO2 and pH declined. Rectal temperature decreased from 38.4 +/- 0.9 to 36.0 +/- 0.8 degrees C. All of these changes were transient and returned to control levels during the follow-up period (2 hours). However, epinephrine concentration was exceptionally decreased by the drugs and stayed under the detection limit (20 pg/kg) for the entire time, whereas norepinephrine was undetectable for 10 minutes postadministration. Ketamine-medetomidine, administered in a dose that produced deep sedation, induced marked but reversible changes in most of the cardiovascular variables; there were no pedal or palpebral reflexes for 30 minutes.

62 NAL Call. No.: 41.8 R312
Cardiovascular effects recorded in horses during anaesthesia after treatment with trichlorfon.
Adams, J.G.; Trim, C.M.
London : British Veterinary Association; 1989 Sep. Research in veterinary science v. 47 (2): p. 164-169; 1989 Sep. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Cardiovascular system; Trichlorfon; Anthelmintics; Blood pressure

63 NAL Call. No.: SF911.V43
The cardiovascular response of sheep to tiletamine-zolazepam and butorphanol tartrate anesthesia.
Howard, B.W.; Lagutchik, M.S.; Januszkiewicz, A.J.; Martin, D.G. Hagerstown, Md. : J.B. Lippincott Company; 1990 Nov.
Veterinary surgery v. 19 (6): p. 461-467; 1990 Nov. Includes references.

Language: English

Descriptors: Ewes; Diazepam; Anesthetics; Ketamine

64 NAL Call. No.: 41.8 AM3A
Cardiovascular responses to exogenous platelet-activating factor (PAF) in anesthetized ponies, and the effects of a PAF antagonist, WEB 2086. Wilson, D.V.; Eberhart, S.W.; Robinson, N.E.; Rice, R.; Gray, P.R. Schaumburg, Ill. : American Veterinary Medical Association; 1993 Feb. American journal of veterinary research v. 54 (2): p. 274-279; 1993 Feb. Includes references.

Language: English

Descriptors: Horses; Phospholipids; Platelets; Dosage; Blood pressure; Antagonists; Hypotension; Vasoconstriction

Abstract: The effects of exogenous platelet-activating factor (PAF) were determined in anesthetized ponies. Administration of PAF induced a decrease in cardiac index that resulted in systemic hypotension. This was followed by tachycardia, hypertension, and a return of cardiac index to baseline. Pulmonary arterial pressure increased markedly because of pulmonary vasoconstriction. Exogenous PAF also caused leukopenia and thrombocytopenia. The specific PAF receptor antagonist (WEB 2086) blocked all PAF-induced changes. Flunixin meglumine, a cyclooxygenase inhibitor, abolished the pulmonary hypertension and tachycardia, and attenuated the systemic hypotension but did not change the PAF-induced peripheral cellular changes. The PAF antagonist also inhibited platelet aggregation induced by PAF in vitro. The PAF-induced changes are similar to those reported after endotoxin exposure in horses.

65 NAL Call. No.: 41.8 C81
A case report on the use of guaifenesin-ketamine-xylazine anesthesia for equine dystocia.
Lin, H.C.; Wallace, S.S.; Robbins, R.L.; Harrison, I.W.; Thurmon, J.C. Ithaca, N.Y. : Cornell Veterinarian, Inc; 1994 Jan.
The Cornell veterinarian v. 84 (1): p. 61-66; 1994 Jan. Includes references.

Language: English

Descriptors: Horses; Dystocia; Anesthesia; Guaifenesin; Ketamine; Xylazine; Drug combinations; Case reports

66 NAL Call. No.: 41.8 Am3A
Caudal analgesia induced by epidural or subarachnoid administration of detomidine hydrochloride solution in mares.
Skarda, R.T.; Muir, W.W. III
Schaumburg, Ill. : American Veterinary Medical Association; 1994 May. American journal of veterinary research v. 55 (5): p. 670-680; 1994 May. Includes references.

Language: English

Descriptors: Mares; Detomidine; Conduction anesthesia; Anesthesia; Ataxia; Hemodynamics; Injection; Drug effects

Abstract: Seven adult mares were used to determine the analgesic, CNS, and cardiopulmonary effects of detomidine hydrochloride solution after epidural or subarachnoid administration, using both regimens in random sequence. At least 1 week elapsed between experiments. A 17-gauge Huber point (Tuohy) directional needle was used to place a catheter with stylet into either the epidural space at the first coccygeal interspace or the subarachnoid space at the lumbosacral intervertebral junction. Catheters were advanced so that the tips lay at the caudal sacral (S5 to S4) epidural space or at the midsacral (S3 to S2) subarachnoid space. Position of the catheter was confirmed radiographically. A 1% solution of detomidine HCl was injected into the epidural catheter at a dosage of 60 micrograms/kg of body weight, and was expanded to a 10-ml volume with sterile water to induce selective caudal epidural analgesia (CEA). A dose of 30 micrograms of detomidine HCl/kg expanded to a 3-ml volume with spinal fluid was injected into the subarachnoid catheter to induce caudal subarachnoid analgesia (CSA). Analgesia was determined by lack of sensory perception to electrical stimulation (avoidance threshold > 40 V, 0.5-ms duration) at the perineal dermatomes and no response to superficial and deep muscular pinprick stimulation at the pelvic limb and lumbar and thoracic dermatomes. Maximal CEA and CSA extended from the coccyx to spinal cord segments T15 and T14 at 10 to 25 minutes after epidural and subarachnoid drug administrations in 2 mares. Analgesia at the perineal area lasted longer after epidural than after subarachnoid administration (142.8 +/- 28.8 minutes vs 127.1 +/- 27.7 minutes). All mares remained standing. Both CEA and CSA induced marked sedation, moderate ataxia, minimal cardiopulmonary depression, increased frequency of second-degree atrioventricular heart block, and renal diuresis. All treatments resulted in significantly ($P < 0.05$) decreased heart rate, respiratory rate, systemic arterial blood pressure, PCV, and plasma total solids concentration. To the contrary, arterial carbon dioxide tension, plasma bicarbonate, and standard base excess concentrations were significantly ($P < 0.05$) increased. Arterial oxygen tension, pH, and rectal temperature did not change significantly from baseline values. Results indicate that use of detomidine for CEA and CSA in mares probably induces local spinal and CNS effects, marked sedation, moderate ataxia, mild cardiopulmonary depression, and renal diuresis.

67 NAL Call. No.: SF601.I4
Caudal epidural anaesthesia in the ewe.
Harris, T.
London : British Veterinary Association; 1991 Nov.
In practice v. 13 (6): p. 234-235; 1991 Nov. Includes references.

Language: English

Descriptors: Ewes; Anesthesia

68 NAL Call. No.: SF601.C24
Caudal epidural analgesia in cattle using xylazine.
Caron, J.P.; LeBlanc, P.H.
Ottawa : Canadian Veterinary Medical Association; 1989 Oct.
Canadian journal of veterinary research; Revue canadienne de recherche veterinaire v. 53 (4): p. 486-489; 1989 Oct.
Includes references.

Language: English

Descriptors: Cows; Xylazine; Conduction anesthesia; Dosage; Duration; Perineum

69 NAL Call. No.: 41.8 AM3A
Caudal epidural analgesia induced by xylazine administration in cows. St Jean, G.; Skarda, R.T.; Muir, W.W.; Hoffsis, G.F. Schaumburg, Ill. : American Veterinary Medical Association; 1990 Aug. American journal of veterinary research v. 51 (8): p. 1232-1236; 1990 Aug. Includes references.

Language: English

Descriptors: Cows; Xylazine; Ataxia; Cardiovascular system; Respiratory system; Rumen motility; Drug effects; Adverse effects

Abstract: Xylazine (0.05 mg/kg of body weight diluted to a 5-ml volume, using 0.9% NaCl) or 5 ml of 0.9% NaCl was administered epidurally into the first caudal intervertebral space (Co1-Co2) in 8 cows (mean +/- SD body weight, 583 +/- 150 kg). Cows were observed for responses to deep needle pricking of the caudal dermatomes (S3 to Co), sedation, and ataxia. Heart rate, respiratory rate, body temperature, rate of ruminal contractions, coccygeal arterial blood pressure, pHa, blood gas tension (Pa(O2), Pa(CO2)), base excess, total solids concentration, and PCV were determined before and after xylazine administration. Epidurally administered xylazine induced sedation and selective (S3 to Co) analgesia for at least 2 hours. Mild ataxia of hind limbs was observed in 6 cows, but all cows remained standing. Heart rate, respiratory rate, rate of ruminal contractions, arterial blood pressure, Pa(O2), PCV, and total solids concentration were significantly ($P < 0.05$) decreased, and Pa(CO2), base excess, and bicarbonate concentration were significantly ($P < 0.05$) increased after xylazine administration. Epidurally administered 0.9% NaCl did not alter sensory perception to needle pricking and did not affect any of the physiologic variables determined. Although epidural administration of xylazine induced analgesia and sedation in healthy cows, it should be avoided for epidural analgesia in cattle with heart disease, lung disease, and/or gastrointestinal disease because of its potent cardiopulmonary and ruminal depressant effects.

70 NAL Call. No.: SF951.J65
Cervical vertebral mobilization under anesthetic (CVMUA): a physical therapy for the treatment of cervico-spinal pain and stiffness.
Ahern, T.J.
Lake Elsinore, Calif. : William E. Jones, DVM; 1994 Oct. Journal of equine veterinary science v. 14 (10): p. 540-545; 1994 Oct. Includes references.

Language: English

Descriptors: Horses; Spine; Pain; Physical therapy; Anesthesia; Mobilization; Trauma

71 NAL Call. No.: 41.8 C81
Changes in equine carpal joint synovial fluid in response to the injection of two local anesthetic agents.
White, K.K.; Hodgson, D.R.; Hancock, D.; Parry, B.W.; Cordell, C. Ithaca, N.Y. : Cornell Veterinarian, Inc; 1989 Jan. Cornell veterinarian v. 79 (1): p. 25-38; 1989 Jan. Includes references.

Language: English

Descriptors: Horses; Lidocaine; Anesthetics; Injections; Carpus; Joints (animal); Synovial fluid

72 NAL Call. No.: SF910.P34A55 1992
Changes in nociceptive thresholds associated with chronic pain in sheep. Waterman, A.E.; Livingston, A.; Ley, S.J.; Brandt, S.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 378-385, 400; 1992. Includes references.

Language: English

Descriptors: Sheep; Pain; Central nervous system; Testing; Animal experiments; Laboratory tests

73 NAL Call. No.: 41.8 R312
Changes in plasma cortisol concentration in lambs of three ages after three methods of castration and tail docking.
Kent, J.E.; Molony, V.; Robertson, I.S.
London : British Veterinary Association, 1960-; 1993 Sep.
Research in veterinary science v. 55 (2): p. 246-251; 1993 Sep. Includes references.

Language: English

Descriptors: Lambs; Castration; Docking; Methodology; Veterinary equipment; Surgery; Age differences; Hydrocortisone; Blood plasma; Pain

Abstract: Lambs were handled only or castrated and tail docked at five, 21 and 42 days of age by either surgery, rubber ring or rubber ring and Burdizzo. Plasma cortisol was measured in blood samples taken before and at 12, 24, 36, 48, 60, 72, 84, 96, 138 and 180 minutes after castration and docking. Pre-treatment and peak cortisol values were highest in five-day-old lambs. The peak cortisol values, at each age, were similar for surgery and rubber ring groups. However, the peak occurred earlier after surgery and rubber ring Burdizzo than after rubber ring only treatment. The cortisol peak was 28 nmol litre-1 lower after rubber ring Burdizzo than surgery or rubber ring only. Plasma cortisol returned to pretreatment values within 84 minutes after rubber ring Burdizzo, 96 to 138 minutes after rubber ring only but not within 180 minutes after surgery. The changes in plasma cortisol together with the changes in behaviour suggest that the rubber ring Burdizzo method of castration and docking of lambs at all ages, was probably the least painful of the methods tested.

74 NAL Call. No.: 41.8 R312
Characterisation of compounds isolated from the sera of horses with aacute grass sickness.
Pemberton, A.D.; Hodgson, J.C.; Gilmour, J.S.; Doxey, D.L.
London : British Veterinary Association; 1990 Nov.
Research in veterinary science v. 49 (3): p. 315-318; 1990 Nov. Includes references.

Language: English

Descriptors: Horses; Grass sickness; Etiology; Blood serum; Neurotoxins; Hydrocortisone; Analgesics

75 NAL Call. No.: 41.8 V641

Chemical immobilisation in ostriches (Struthio camelus) using etorphine hydrochloride.
Samour, J.H.; Irwin-Davies, J.; Faraj, E.
London : The Association; 1990 Dec08.
The Veterinary record : journal of the British Veterinary Association v. 127 (23): p. 575-576. ill; 1990 Dec08.
Includes references.

Language: English

Descriptors: Ostriches; Immobilization; Etorphine; Anesthesia

76 NAL Call. No.: SF951.V47
Chemical restraint and analgesia in the horse.
Geiser, D.R.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 495-512; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Draft animals; Anesthetics; Anesthesia; Neuroleptics; Restraint of animals; Chloral hydrate; Opioids; Analgesics; Promazine; Xylazine; Diazepam; Morphine; Pethidine

77 NAL Call. No.: SF601.A46
Chemical restraint and general anesthesia in the draft horse.
Geiser, D.R.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (35th): p. 461-472; 1989.
Meeting held December 3-6 1989, Boston, Massachusetts.
Includes references.

Language: English

Descriptors: Horses; Draft animals; Anesthesia; Anesthetics; Restraint of animals

78 NAL Call. No.: SF951.V47
Chemical restraint for surgery in the standing horse.
LeBlanc, P.H.
Philadelphia, Pa. : W.B. Saunders; 1991 Dec.
The Veterinary clinics of North America : equine practice v. 7 (3): p. 521-533; 1991 Dec. In the series analytic: Standing surgery / edited by Alicia L. Bertone. Includes references.

Language: English

Descriptors: Horses; Restraint of animals; Neuroleptics; Drugs; Opium; Drug combinations

79 NAL Call. No.: 41.8 Am3A
Circulatory and respiratory responses of spontaneously breathing, laterally recumbent horses to 12 hours of halothane anesthesia.
Steffey, E.P.; Dunlop, C.I.; Cullen, L.K.; Hodgson, D.S.; Giri, S.N.; Willits, N.; Woliner, M.J.; Jarvis, K.A.; Smith, C.M.; Elliott, A.R. Schaumburg, Ill. : American Veterinary Medical Association; 1993 Jun. American journal of veterinary research v. 54 (6): p. 929-936; 1993 Jun. Includes references.

Language: English

Descriptors: Horses; Halothane; Cardiovascular system; Respiratory system; Anesthesia; Duration

Abstract: Cardiovascular and at accompany markedly long periods (12 hours) of halothane anesthesia were characterized. Eight spontaneously breathing horses were studied while they were positioned in left lateral recumbency and anesthetized only with halothane in oxygen maintained at a constant end-tidal concentration of 1.06% (equivalent to 1.2 times the minimal alveolar concentration for horses). Results of circulatory and respiratory measurements during the first 5 hours of constant conditions were similar to those previously reported from this laboratory (ie, a time-related significant increase in systemic arterial blood pressure, cardiac output, stroke volume, left ventricular work, PCV, plasma total solids concentration, and little change in respiratory system function). Beyond 5 hours of anesthesia, arterial blood pressure did not further increase, but remained above baseline. Cardiac output continued to increase, because heart rate significantly ($P < 0.05$) increased. Peak inspiratory gas flow increased significantly ($P < 0.05$) in later stages of anesthesia. There was a significant decrease in inspiratory time beginning at 4 hours. Although PaO2, and PaCO2, did not significantly change during the 12 hours of study, PVO2 increased significantly $P < 0.05$) and progressively with time, beginning 6 hours after the beginning of constant conditions. Metabolic acidosis increased with time significantly [$P < 0.05$] starting at 9 hours), despite supplemental IV administered NaHCO3. Plasma concentrations of eicosanoids: 6-ketoprostaglandin F1 alpha (PGF1 alpha, a stable metabolite of PGI2), PGF2 alpha, PGE, and thromboxane (TxB2, a stable metabolite of TxA2) were measured in 5 of the 8 horses before and during anesthesia. Significant changes from preanesthetic values were not Significant changes from preanesthetic values were not detected. Dynamic thoracic wall and lung compliances decreased with time.

80 NAL Call. No.: SF910.P34A55 1992
Clinical assessment of analgesic effects of butorphanol in cattle. Dodman, N.H.; Levine, H.; Court, M.H.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 396-399, 401; 1992. Includes references.

Language: English

Descriptors: Cattle; Analgesics; Drug effects

81 NAL Call. No.: SF955.E6
Clinical evaluation of an infusion of xylazine, guaifenesin and ketamine for maintenance of anaesthesia in horses.
Young, L.E.; Bartram, D.H.; Diamond, M.J.; Gregg, A.S.; Jones, R.S. Newmarket : R & W Publications; 1993 Mar.
Equine veterinary journal v. 25 (2): p. 115-119; 1993 Mar. Includes references.

Language: English

Descriptors: Uk; Horses; Xylazine; Anesthesia; Guaifenesin; Ketamine; Surgery

82 NAL Call. No.: SF601.A46
Clinical evaluation of detomidine hydrochloride for equine reproductive surgery.
McKinnon, A.O.; Carnevale, E.M.; Squires, E.L.; Jochle, W.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 563-568; 1989.
Meeting held December 4-7, 1988, San Diego, CA. Includes

references.

Language: English

Descriptors: Horses; Surgical operations; Analgesics; Reproductive organs (animal)

83 NAL Call. No.: 41.8 V641
Clinical evaluation of romifidine/ketamine/halothane anaesthesia in horses. Diamond, M.J.; Young, L.E.; Bartram, D.H.; Gregg, A.S.; Clutton, R.E.; Long, K.J.; Jones, R.S.
London : The Association; 1993 Jun05.
The Veterinary record : journal of the British Veterinary Association v. 132 (23): p. 572-575; 1993 Jun05. Includes references.

Language: English

Descriptors: Horses; Preanesthetic medication

84 NAL Call. No.: SF601.A46
Clinical experience with isoflurane anesthesia in foals and adult horses. Rose, J.A.; Rose, E.M.; Peterson, P.R.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 555-561; 1989. Meeting held December 4-7, 1988, San Diego, CA. Includes references.

Language: English

Descriptors: Horses; Foals; Anesthesia; Halothane; Anesthetics

85 NAL Call. No.: SF915.J63
Clinical investigations of halothane and isoflurane for induction and maintenance of foal anesthesia.
Steffey, E.P.; Willits, N.; Wong, P.; Hildebrand, S.V.; Wheat, J.D.; Meagher, D.M.; Hodgson, D.; Pascoe, J.R.; Heath, R.B.; Dunlop, C.
Oxford : Blackwell Scientific Publications; 1991 Sep.
Journal of veterinary pharmacology and therapeutics v. 14 (3): p. 300-309; 1991 Sep. Includes references.

Language: English

Descriptors: Foals; Halothane; Inhaled anesthetics; Anesthesia; Safety; Heart rate; Drug effects

86 NAL Call. No.: SF380.I52
Clinical observations in Shami goat kids sedated with medetomidine. Mohammad, F.K.; Zangana, I.K.; Al-Kassim, N.A.
New York : Elsevier; 1991 Jul.
Small ruminant research v. 5 (1/2): p. 149-153; 1991 Jul. Includes references.

Language: English

Descriptors: Kids; Anesthetics; Analgesics; Physiological functions; Heart rate; Respiration rate; Body temperature; Rumen motility

87 NAL Call. No.: SF955.E6
Clinical use of epidural xylazine in the horse.
LeBlanc, P.H.; Caron, J.P.
Newmarket : R & W Publications; 1990 May.

Equine veterinary journal v. 22 (3): p. 180-181; 1990 May.
Includes references.

Language: English

Descriptors: Horses; Anesthetics; Conduction anesthesia; Xylazine

88 NAL Call. No.: SF951.V47
Clinical use of positive-pressure ventilation in the horse.
Shawley, R.V.; Mandsager, R.E.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 575-585; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Ventilation; Equipment; Ventilators

89 NAL Call. No.: 41.8 AM3
Clinical use of the neuromuscular blocking agents atracurium and pancuronium for equine anesthesia.
Hildebrand, S.V.; Holland, M.; Copland, V.S.; Daunt, D.; Brock, N. Schaumburg, Ill. : The Association; 1989 Jul15.
Journal of the American Veterinary Medical Association v. 195 (2): p. 212-219; 1989 Jul15. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Muscle relaxants; Drug effects; Surgical operations

90 NAL Call. No.: SF911.V43
Closed-circuit liquid injection isoflurane anesthesia in the horse. Olson, K.N.; Klein, L.V.; Nann, L.E.; Soma, L.R.
Hagerstown, Md. : J.B. Lippincott Company; 1993 Jan.
Veterinary surgery v. 22 (1): p. 73-78; 1993 Jan. Includes references.

Language: English

Descriptors: Pennsylvania; Horses; Anesthesia; Closed systems; Injection; Liquids; Surgery

91 NAL Call. No.: 41.8 V641
A combination of methotrimeprazine, midazolam and guaiphenesin, with and without ketamine, in an anaesthetic procedure for horses. Luna, S.P.L.; Massone, F.; Castro, G.B.; Fantoni, D.T.; Hussni, C.A.; Aguiar, A.J.A.
London : The Association; 1992 Jul11.
The Veterinary record : journal of the British Veterinary Association v. 131 (2): p. 33-35; 1992 Jul11. Includes references.

Language: English

Descriptors: Horses; Phenothiazines; Benzodiazepines; Guaifenesin; Ketamine; Anesthesia; Drug combinations; Preanesthetic medication; Halothane; Drug effects; Adverse effects; Cardiovascular system; Respiration

92 NAL Call. No.: SF601.A46
Common complications associated with equine chemical restraint and anesthesia. Muir, W.W. III

Manhattan, Kan. : The Association; 1990.
Proceedings of the annual convention of the American Association of Equine Practitioners. p. 259-266; 1990.
Meeting held December 2-5, 1990, Lexington, KY. Includes references.

Language: English

Descriptors: Horses; Restraint of animals; Anesthesia; Postoperative complications

93 NAL Call. No.: SF601.I4
Common conditions of domestic pigeons.
Wallis, A.S.
London : British Veterinary Association; 1991 May.
In practice v. 13 (3): p. 95-100; 1991 May. Literature review. Includes references.

Language: English

Descriptors: Racing pigeons; Animal health; Laboratory diagnosis; Parasites; Treatment; Drugs; Anesthetics; Symptoms

94 NAL Call. No.: QP251.A1T5
Comparative efficacy of FSH-P and PMSG on superovulation in Pashmina goats. Mahmood, S.; Koul, G.L.; Biswas, J.C.
Stoneham, Mass. : Butterworth-Heinemann; 1991 Jun.
Theriogenology v. 35 (6): p. 1191-1196; 1991 Jun. Includes references.

Language: English

Descriptors: Goats; Goat breeds; Superovulation; Fsh; Pmsg; Embryos; Isolation; Survival; Corpus luteum; Age; Conception; Embryo transfer; Anesthesia; Triflupromazine; Barbiturates

Abstract: Twenty-eight Pashmina goats were utilized to study the comparative effect of FSH-P and PMSG on superovulatory response. The effect of FSH-P marketed by two commercial firms was compared with respect to the number of corpora lutea and embryos recovered. The difference was found to be nonsignificant. Superovulatory responses with FSH-P (pooled) and PMSG were 16.55 +/- 6.13 and 11.70 +/- 8.07, respectively, and the difference was significant (P<0.02). Recovery of embryos was significantly higher (P<0.001) with FSH-P (4.72 +/- 4.33) than with PMSG (2.50 +/- 5.02) treatment. The superovulatory response (number of corpora lutea) and the embryo recovery rate was better in higher age groups (4 to 6 yr) than younger goats (1.5 to 3 yr). The embryo survival rate was higher (54.54%) for recipients operated on under a basal anaesthetics (Triflupromazine hydrochloride USP) than for those operated on under barbiturate anaesthesia (13.64%). The overall conception rate was 34.09%.

95 NAL Call. No.: 49 J82
A comparative physiological and behavioral study of freeze and hot-iron branding using dairy cows.
Lay, D.C. Jr; Friend, T.H.; Bowers, C.L.; Grissom, K.K.; Jenkins, O.C. Champaign, Ill. : American Society of Animal Science; 1992 Apr. Journal of animal science v. 70 (4): p. 1121-1125; 1992 Apr. Includes references.

Language: English

Descriptors: Dairy cows; Branding; Pain; Heart rate; Blood plasma; Hydrocortisone; Behavioral resistance; Animal welfare

Abstract: A public debate has recently arisen, largely surrounding the issue of pain, over whether freeze or hot-iron branding should be the preferred method of permanently identifying cattle. This study addressed that question by quantifying the following accepted measures of distress and pain over a 25-min sampling period: elevated heart rate, concentrations of cortisol, epinephrine, and norepinephrine, and escape-avoidance reactions and vocalizations. Twenty-four dairy cows (15 Holsteins and 9 Jerseys) were assigned to one of three treatments: freeze-branded (F), hot-iron-branded (H), or sham-branded (S), in which a room-temperature brander was applied. Plasma epinephrine and norepinephrine concentrations showed no discernible trends. Plasma cortisol concentrations were elevated in the F and H cows from 5.5 min to 25.5 min postbranding (P = .04). Heart rate, analyzed as a proportion of the prebranding mean, showed that H cows had a greater, more acute, response than did F cows (P = .04), which exhibited a more prolonged response (P = .07). No cows vocalized during branding; however, H cows had a greater escape-avoidance reaction toward branding than did the F and S cows. Both methods of branding produced elevated heart rates and cortisol concentrations indicative of pain sensations. Because the cows exhibited a greater escape-avoidance reaction and heart rate proportions to hot-iron branding, freeze banding would be preferable to hot-iron branding when feasible.

96 NAL Call. No.: SF601.A46
Comparative responses to anesthesia in the conditioned and nonconditioned Standardbred.
Short, C.E.; Keegan, R.D.; Sanders, E.; Gleed, R.D.; Maylin, G.A.; Abdella, M.G.
Lexington, Ky. : The Association; 1993.
Proceedings of the annual convention of the American Association of Equine Practitioners. p. 51-67; 1993. Meeting helding on November 29-December 2, 1992, Orlando, Florida.
Includes references.

Language: English

Descriptors: Horses; Anesthesia

97 NAL Call. No.: 41.8 AM3A
Comparative study of continuous lumbar segmental epidural and subarachnoid analgesia in Holstein cows.
Skarda, R.T.; Muir, W.W.; Hubbell, J.A.E.
Schaumburg, Ill. : American Veterinary Medical Association; 1989 Jan. American journal of veterinary research v. 50 (1): p. 39-44. ill; 1989 Jan. Includes references.

Language: English

Descriptors: Dairy cows; Analgesics; Procaine; Administration; Injections; Catheters; Holstein-friesian; Cardiovascular system; Respiratory system

Abstract: Eight adult Holstein cows were used to compare the effects of lumbar segmental epidural analgesia (SEA) and lumbar segmental subarachnoid analgesia (SSA). A modified 17-gauge Huber point (Tuohy) needle was used to place a catheter with stylet into either the epidural space at the thoracolumbar (T13-L1) intervertebral space or the tubarachnoid space at the lumbosacral intervertebral junction. The catheters were advanced so that their tips lay at the anterior lumbar (L1-L2) epidural space or at the thoracolumbar (T-13-L1) subarachnoid space. The position of the catheter was confirmed radiographically. A 5% solution of procaine HCl was used at mean doses of 300 mg (6 ml) to induce SEA and 84.4 +/-

12.9 mg (1.7 +/-0.3 ml) to induce SSA. Onset of analgesia to superficial and deep muscular pinprick stimulation was significantly (P less than 0.05) faster in cows with SSA than in those with SEA (10.4 +/- 2.3 minutes vs 15.9 +/- 3.8 minutes). Maximal thoracolumbar analgesia extended from spinal cord segments T12 to L4 on one or both sides of the vertebral column during SEA and from T10 to L3 on one or both sides during SSA. Duration of analgesia lasted significantly (P less than 0.05) longer in cows with SEA than in those with SSA (76.2 +/- 16.2 minutes vs 53.7 +/- 14.3 minutes). The advantages and disadvantages of the SEA catheter technique are discussed.

98 NAL Call. No.: 41.8 AM3A
Comparative study of the pharmacokinetics of alfentanil in rabbits, sheep, and dogs.
Ilkiw, J.E.; Benthuysen, J.A.; McNeal, D.
Schaumburg, Ill. : American Veterinary Medical Association; 1991 Apr. American journal of veterinary research v. 52 (4): p. 581-584; 1991 Apr. Includes references.

Language: English

Descriptors: Dogs; Sheep; Rabbits; Analgesics; Pharmacokinetics; Species differences; Anesthesia

Abstract: The central arterial pharmacokinetics of alfentanil, a short-acting opioid agonist, were studied in rabbits, sheep, and dogs after short-duration infusion of the drug. Alfentanil was infused until a set end point (high-amplitude, slow-wave activity on the EEG) was reached. This required a larger alfentanil dose and a higher alfentanil arterial concentration in sheep, compared with rabbits and dogs. The plasma concentration-time data for each animal were fitted, using nonlinear regression, and in all animals, were best described by use of a triexponential function. In this study, differences in the disposition kinetics of alfentanil among the 3 species were found for only distribution clearance and initial distribution half-life. In dogs, compared with rabbits and sheep, the first distribution half-life was longer, probably because of pronounced drug-induced bradycardia (mean +/- SD, 48 +/-21 beats/min). Distribution clearance was faster in sheep, compared with dogs, also probably because of better blood flow in sheep. Elimination half-life was similar in all species (rabbits, 62.4 +/- 11.3 minutes; sheep, 65.1 +/- 27.1 minutes; dogs, 58.3 +/- 10.3 minutes). This rapid half-life resulted from a small steady-state volume of distribution (rabbits, 908.3 +/- 269.0 ml/kg; sheep, 720.0 +/- 306.7 ml/kg; dogs, 597.7 +/- 290.2 ml/kg) and rapid systemic clearance (rabbits, 19.4 +/- 5.3 ml/min/kg; sheep, 13.3 +/- 3.0 ml/min/kg; dogs, 18.7 +/- 7.5 ml/min/kg). On the basis of these pharmacokinetic variables, alfentanil should have short duration of action in rabbits, sheep, and dogs. This may be beneficial in veterinary practice where rapid recovery would be expected after bolus administration for short procedures or after infusion for longer procedures.

99 NAL Call. No.: 41.8 AM3A
Comparative study of ultrasonography and arteriography of the carotid artery of xylazine-sedated and halothane-anesthetized goats.
Lee, S.W.; Hankes, G.H.; Purohit, R.C.; Bartels, J.E.; Cartee, R.E.; Pablo, L.; Conti, J.C.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Jan. American journal of veterinary research v. 51 (1): p. 109-113. ill; 1990 Jan. Includes references.

Language: English

Descriptors: Goats; Ultrasound; Diagnostic techniques; Blood vessel disorders; Arteries; Neck; Diameter; Blood flow; Xylazine; Halothane

Abstract: The carotid artery of clinically normal goats was examined, using duplex ultrasonography and arteriography. The diameter of the carotid artery was measured by use of two-dimensional ultrasonography and Doppler ultrasonography, respectively, before and after xylazine administration. The diameter of the artery was also measured by use of an arteriography technique in halothane-anesthetized goats. There was no significant difference between the mean diameter of the carotid artery measured by ultrasonography in conscious nonsedated goats and that determined by arteriography in goats under halothane anesthesia. On the other hand, ultrasonography of xylazine-sedated goats revealed an increase of carotid artery diameter of 20 to 30%. There was no change in the velocity of blood flow after xylazine administration.

100 NAL Call. No.: 41.8 C81
A comparison of end-tidal halothane concentrations measured at proximal and distal ends of the endotracheal tube in the horse.
Matthews, N.S.; Hartsfield, S.M.; Cornick, J.L.; Jacobson, J.D.; Williams, J.D.
Ithaca, N.Y. : Cornell Veterinarian, Inc; 1992 Jan.
Cornell veterinarian v. 82 (1): p. 21-27; 1992 Jan. Includes references.

Language: English

Descriptors: Horses; Halothane; Anesthesia; Concentration; Measurement; Sampling

101 NAL Call. No.: SF911.V43
A comparison of injectable anesthetic combinations in horses.
Matthews, N.S.; Hartsfield, S.M.; Cornick, J.L.; Williams, J.D.; Beasley, A. Hagerstown, Md. : J.B. Lippincott Company; 1991 Jul.
Veterinary surgery v. 20 (4): p. 268-273; 1991 Jul. Includes references.

Language: English

Descriptors: Horses; Anesthetics; Injectable anesthetics; Xylazine; Drug combinations; Ketamine

102 NAL Call. No.: 41.8 Am3
Comparison of lidocaine, xylazine, and xylazine/lidocaine for caudal epidural analgesia in horses.
Grubb, T.L.; Riebold, T.W.; Huber, M.J.
Schaumburg, Ill. : The Association; 1992 Oct15.
Journal of the American Veterinary Medical Association v. 201 (8): p. 1187-1190; 1992 Oct15. Includes references.

Language: English

Descriptors: Horses; Lidocaine; Xylazine; Drug combinations; Conduction anesthesia; Duration; Catheters

103 NAL Call. No.: SF911.V43
A comparison of methods for proximal palmar metacarpal analgesia in horses. Ford, T.S.; Ross, M.W.; Orsini, P.G.
Philadelphia, Pa. : J.B. Lippincott Company; 1989 Mar.
Veterinary surgery v. 18 (2): p. 146-150. ill; 1989 Mar.

Includes references.

Language: English

Descriptors: Horses; Metacarpus; Carpus; Joints (animal); Anesthesia; Injections; Analgesics; Infiltration

104 NAL Call. No.: 41.8 Am3
Comparison of recoveries from halothane vs isoflurane anesthesia in horses. Matthews, N.S.; Miller, S.M.; Hartsfield, S.M.; Slater, M.R. Schaumburg, Ill. : The Association; 1992 Aug15.
Journal of the American Veterinary Medical Association v. 201 (4): p. 559-563; 1992 Aug15. Includes references.

Language: English

Descriptors: Horses; Halothane; Inhaled anesthetics; Anesthesia; Recovery; Time; Surgery

105 NAL Call. No.: SF955.E6
A comparison of responses to analgesia of the navicular bursa and intra-articular analgesia of the distal interphalagneal joint in 59 horses. Dyson, S.J.; Kidd, L.
Newmarket : R & W Publications; 1993 Mar.
Equine veterinary journal v. 25 (2): p. 93-98; 1993 Mar.
Includes references.

Language: English

Descriptors: Uk; Horses; Lameness; Analgesics; Serous bursa; Joints (animal); Synovial fluid

106 NAL Call. No.: 410.9 P94
Comparison of Telazol, Telazol-ketamine, Telazol-xylazine, and Telazol-ketamine-xylazine as chemical restraint and anesthetic induction combination in swine.
Ko, J.C.H.; Williams, B.L.; Smith, V.L.; McGrath, C.J.; Jacobson, J.D. Cordova, Tenn. : American Association for Laboratory Animal Science; 1993 Oct. Laboratory animal science v. 43 (5): p. 476-480; 1993 Oct. Includes references.

Language: English

Descriptors: Pigs; Anesthesia

Abstract: The use of Telazol (T, tiletamine and zolazepam, 4.4 mg T/kg) alone, Telazol-ketamine (TK, 4.4 mg T/kg and 2.2 mg K/kg), Telazol-xylazine (TX, 4.4 mg T/kg, 2.2 mg X/kg), and Telazol-ketamine-xylazine (TKX, 4.4 mg T/kg, 2.2 mg K/kg, and 2.2 mg X/kg) as chemical restraint and anesthetic induction combination was compared in pigs. Forty mixed-breed healthy pigs (24.4 +/- 5.6 kg, mean +/- SD) were randomly assigned to the four treatment groups (T, TK, TX, TKX) with 10 pigs in each group. All the anesthetics were premixed by adding sterile water, ketamine, xylazine, or xylazine and ketamine directly into the Telazol vial and given as a single intramuscular injection. All four anesthetic combinations induced a rapid onset of sternal recumbency within 1.76 +/- 1.0 minutes and lateral recumbency within 3.02 +/- 2.2 minutes in pigs after intramuscular injection; there was no significant difference among treatments. The combinations TX and TKX induced analgesia (as evident by a lack of response to needle prick in the middle portion of the pinna and flank regions) duration of 29.0 +/- 11.0 and 36.0 +/- 12.2 minutes, respectively, and ability to tolerate tracheal intubation (as evident by lack of coughing and chewing response to a

laryngoscope) for a period of 34.0 +/-8.4 and 39.0 +/- 9.9 minutes, respectively. The combinations T and TK did not induce analgesia nor conditions suitable for intubation. Duration of lateral recumbency was 29.9 +/- 10, 33.1 +/- 6.9, 52.2 +/- 6.9, and 61.5 +/- 10.7 minutes in T-, TK-, TX-, and TKX-treated pigs, respectively. Recovery quality was roughest in T-treated pigs. It was somewhat improved in TK- and TKX-treated pigs. The smoothest recovery was observed in TX-treated pigs.We concluded that all four anesthetic combinations were suitable for chemical restraint in pigs, but only TKX and TX were suitable for either anesthetic induction or short-term anesthesia. The addition of ketamine to the TX combination (i.e., TKX) did not provide any significant advantages over TX alone when these agents were used for anesthetic induction or short-term anesthesia.

107 NAL Call. No.: 41.8 V641
Comparison of the sedative effects of medetomidine and xylazine in horses. Bryant, C.E.; England, G.C.W.; Clarke, K.W.
London : The Association; 1991 Nov09.
The Veterinary record : journal of the British Veterinary Association v. 129 (19): p. 421-423; 1991 Nov09. Includes references.

Language: English

Descriptors: Horses; Alpha-adrenergic receptors; Xylazine; Drug effects; Intravenous injection; Adverse effects

108 NAL Call. No.: SF915.J63
A comparison of the sedative effects of three alpha 2-adrenoceptor agonists (romifidine, detomidine and xylazine) in the horse.
England, G.C.W.; Clarke, K.W.; Goossens, L.
Oxford : Blackwell Scientific Publications; 1992 Jun.
Journal of veterinary pharmacology and therapeutics v. 15 (2): p. 194-201; 1992 Jun. Includes references.

Language: English

Descriptors: Horses; Xylazine; Agonists; Anesthesia; Dosage; Intravenous injection; Adverse effects

109 NAL Call. No.: SF910.P34A55 1992
Comparison of the thermal and mechanical antiociceptive actions of opioids and alpha 2-adrenoreceptor agonists in sheep.
Livingston, A.; Waterman, A.E.; Nolan, A.; Amin, A.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 372-377, 400; 1992. Includes references.

Language: English

Descriptors: Sheep; Agonists; Opioids; Pain; Testing; Animal experiments; Alpha-adrenergic receptors; Analgesics; Xylazine; Fentanyl; Pethidine; Laboratory tests

110 NAL Call. No.: 41.8 Au72
Comparison of tiletamine-zolazepam-ketamine and tiletamine-zolazepam-ketamine-xylazine anaesthesia in sheep.
Lin, H.C. \u Auburn University, AL; Wallace, S.S.; Tyler, J.W.; Robbins, R.L.; Thurmon, J.C.; Wolfe, D.F.
Brunswick, Vic. : Australian Veterinary Association, 1927-; 1994 Aug. Australian veterinary journal v. 71 (8): p. 239-242;

1994 Aug. Includes references.

Language: English

Descriptors: Sheep; Anesthesia; Drug combinations; Injectable anesthetics; Xylazine; Heart rate; Respiration rate; Blood pressure; Electrocardiograms

111 NAL Call. No.: SF911.V43
A comparison of xylazine-diazepam-ketamine and xylazine-guaifenesin-ketamine in equine anesthesia.
Brock, N.; Hildebrand, S.V.
Hagerstown, Md. : J.B. Lippincott Company; 1990 Nov.
Veterinary surgery v. 19 (6): p. 468-474; 1990 Nov. Includes references.

Language: English

Descriptors: Horses; Anesthetics; Diazepam; Ketamine; Xylazine; Guaifenesin

112 NAL Call. No.: SF895.P76
Complications associated with alcohol tail-blocks in three horses. Stewart, R.H.; Reed, S.M.; Weisbrode, S.E.
Washington, D.C. : Fidia Research Foundation; 1990.
Progress in veterinary neurology v. 1 (4): p. 476-480; 1990. Includes references.

Language: English

Descriptors: Horses; Case reports; Complications; Ethanol; Injection; Tail; Conduction anesthesia

113 NAL Call. No.: SF601.A46
Compressed spectral analysis of the EEG as an indicator of anesthetic quality during anesthesia for orthopedic surgery in the horses.
Short, C.E.; Ekstrom, P.M.
Lexington, Ky. : The Association; 1993.
Proceedings of the annual convention of the American Association of Equine Practitioners. p. 69-80; 1993. Meeting helding on November 29-December 2, 1992, Orlando, Florida. Includes references.

Language: English

Descriptors: Horses; Anesthesia

114 NAL Call. No.: SF955.E6
A computer-derived protocol to aid in selecting medical versus surgical treatment of horses with abdominal pain.
Ducharme, N.G.; Pascoe, P.J.; Lumsden, J.H.; Ducharme, G.R.
Newmarket : R & W Publications; 1989 Nov.
Equine veterinary journal v. 21 (6): p. 447-450; 1989 Nov. Includes references.

Language: English

Descriptors: Horses; Abdomen; Pain; Colic; Medical treatment; Surgery; Decision analysis; Computer analysis

115 NAL Call. No.: SF601.C24
A computer-derived protocol using recursive partitioning to aid in estimating prognosis of horses with abdominal pain in referral hospitals. Pascoe, P.J.; Ducharme, N.G.; Ducharme,

G.R.; Lumsden, J.H. Ottawa : Canadian Veterinary Medical Association; 1990 Jul. Canadian journal of veterinary research; Revue canadienne de recherche veterinaire v. 54 (3): p. 373-378; 1990 Jul. Includes references.

Language: English

Descriptors: Horses; Colic; Abdomen; Survival; Estimation; Computer analysis

116 NAL Call. No.: 41.8 R312
Contribution of amino acid transmitters to epileptiform activity and reflex suppression in electrically head stunned sheep.
Cook, C.J.; Devine, C.E.; Tavener, A.; Gilbert, K.V.
London : British Veterinary Association; 1992 Jan.
Research in veterinary science v. 52 (1): p. 48-56; 1992 Jan.
Includes references.

Language: English

Descriptors: Sheep; Stunning; Electrical treatment; Gamma-aminobutyric acid; Amino acids; Receptors; Anesthetics; Reflexes; Convulsions

Abstract: In sheep, administration of a combination of zolazepam and tiletamine hydrochloride resulted in a dose dependent reduction in the duration of epileptic activity induced by an electric stun applied to the head. The compound also lengthened the normal period of reflex suppression that occurs after a stun. Excitatory amino acid receptor antagonists (2-amino-7-phosphonoheptanoic and 2-amino-5-phosphonovaleric acids) also reduced the duration of epileptic activity following an electric stun. These drugs did not alter the time of pedal and ear pinch reflex suppression. Administration of bicuculline (a gamma amino-4-butyric acid [GABA] receptor antagonist) reduced the period of stun induced reflex suppression and increased seizure duration. Administration of a GABA receptor agonist, baclofen, increased the duration of reflex suppression. The results suggest that the development of epileptiform-like activity following application of an electric current to the head is dependent upon excitatory amino acid receptors. The reflex suppression that also arises following an electric stun is contributed to by the activation of GABA receptor mechanisms.

117 NAL Call. No.: 41.8 AM3A
Correlation between drug and metabolite concentrations in plasma and anesthetic action of ketamine in swine.
Loscher, W.; Ganter, M.; Fassbender, C.P.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Mar. American journal of veterinary research v. 51 (3): p. 391-398; 1990 Mar. Includes references.

Language: English

Descriptors: Pigs; Ketamine; Anesthesia; Blood plasma; Metabolites; Administration; Pharmacokinetics; Pharmacodynamics

Abstract: Pharmacokinetic variables and metabolism of IM and IV administered ketamine (15 mg/kg of body weight) were determined in 8 swine (2 adult sows and 6 young pigs). After IM administration, maximal plasma concentration was rapidly reached, but peak concentration varied considerably, although comparison with IV data for the same swine indicated that the drug was almost completely absorbed from the musculature. After IV administration, ketamine kinetics followed a 3-term

exponential decrease, indicating rapid initial distribution of the drug to highly vascular tissues including the brain, followed by redistribution into less vascular tissues, and elimination. Redistribution and elimination phases, with similar kinetics as those observed in the IV experiment, also were determined in the IM experiment. After both routes of administration, onset of anesthesia was rapid, and most swine recovered consciousness during the phase of redistribution, indicating that anesthesia is terminated by redistribution of drug from the brain into other tissues, whereas metabolism and excretion are less important for duration of anesthesia induced by ketamine. The time during which the swine resumed a lateral position (sleep time) was positively correlated with plasma ketamine concentration at onset of lateral recumbency, as well as with the area under the plasma concentration-time curve. The minimal plasma ketamine concentration for induction of immobilization was about 2 microgram/ml. In adult sows, ketamine induced profound analgesia, which was not obtained in young pigs; this difference in potency could not be related to pharmacokinetic differences between young and adult swine. With respect to metabolism of ketamine in swine, the major metabolite in plasma was norketamine (metabolite I), whereas a second metabolite (metabolite II) was detected only in low concentrations. Elimination half-life of ketamine was about 2 hours after either IM or IV administration.

118 NAL Call. No.: SF391.P55
Creatine kinase activity in blood plasma and muscles of pigs susceptible and resistant to halothane anaesthesia.
Poltarsky, J.; Kolataj, A.; Bulla, J.
Wallingford : Commonwealth Agricultural Bureaux; 1989 Dec. Pig news and information v. 10 (4): p. 469-472; 1989 Dec.
Includes references.

Language: English

Descriptors: Pigs; Creatine kinase; Enzyme activity; Blood plasma; Longissimus dorsi; Halothane; Drug resistance; Sex differences

119 NAL Call. No.: 41.8 M69
Critical care in adult horses: restraint, analgesia, and anti-inflammatory support.
Bertone, J.J.
Lenexa, Kan. : Veterinary Medicine Publishing Co; 1993 Nov.
Veterinary medicine v. 88 (11): p. 1066-1073; 1993 Nov. First of a series. Includes references.

Language: English

Descriptors: Horses; Intensive care; Restraint of animals; Anesthesia; Antiinflammatory agents; Drug therapy

120 NAL Call. No.: 41.8 V641
Cushioning the effects of anaesthesia.
Vogel, C.
London : The Association; 1990 Oct20.
The Veterinary record : journal of the British Veterinary Association v. 127 (16): p. 394; 1990 Oct20.

Language: English

Descriptors: Horses; Anesthesia; Anesthetics

121 NAL Call. No.: SF951.V47
The decision process: standing surgery versus general

anesthesia and recumbency.
Bertone, A.L.
Philadelphia, Pa. : W.B. Saunders; 1991 Dec.
The Veterinary clinics of North America : equine practice v. 7 (3): p. 485-488; 1991 Dec. In the series analytic: Standing surgery / edited by Alicia L. Bertone.

Language: English

Descriptors: Horses; Surgery; Anesthesia; Decision making; Restraint of animals; Risk; Safety; Time; Costs

122 NAL Call. No.: 475 J824
Determination of residues of carazolol and a number of tranquillizers in swine kidney by high-performance liquid chromatography with ultraviolet and fluorescence detection.
Keukens, H.J.; Aerts, M.M.L.
Amsterdam : Elsevier Science Publishers; 1989 Feb17.
Journal of chromatography v. 464 (1): p. 149-161; 1989 Feb17. Includes references.

Language: English

Descriptors: Netherlands; Pigs; Kidneys; Drug residues; Neuroleptics; Determination; Liquid chromatography; Fluorescence; Ultraviolet spectroscopy

123 NAL Call. No.: 41.8 AM3A
Determination of sensitivity to metocurine in exercised horses. White, D.A.; Hildebrand, S.V.; Jones, J.H.; Fung, D.L.; Gronert, G.A. Schaumburg, Ill. : American Veterinary Medical Association; 1992 May. American journal of veterinary research v. 53 (5): p. 757-761; 1992 May. Includes references.

Language: English

Descriptors: Horses; Muscle relaxants; Exercise; Pharmacokinetics; Pharmacodynamics

Abstract: On the basis of results in dogs, conditioning exercise may increase sensitivity to nondepolarizing muscle relaxants. Five Thoroughbreds were exercised/conditioned 3 times weekly on a treadmill for 8 months. Increasing maximal rate of O2 consumption verified that the horses were responding to exercise conditioning. Six nonexercised Thoroughbreds served as the control group. Studies were done with horses under general anesthesia by use of halothane during partial paralysis by a brief constant-rate infusion with the muscle relaxant, metocurine iodide. Quantification of degree of paralysis of the hoof twitch (eg, digital extensor) occurred with simultaneous quantification of blood values of metocurine. Pharmacokinetic and pharmacodynamic analyses of the data were done by a nonlinear regression program, using the Hill equation. There were no differences in findings between exercised and nonexercised horses. The mean blood concentration for the 50% paralyzing dose of metocurine was 0.44 +/- 0.11 (SD) micrograms/ml in exercised horses, and 0.58 +/- 0.22 micrograms/ml in nonexercised horses. Despite evidence for a response to conditioning, a significant change in the sensitivity of the neuromuscular junction to metocurine was not found.

124 NAL Call. No.: 475 J824
Determination of tranquilisers and carazolol residues in animal tissue using high-performance liquid chromatography with electrochemical detection. Rose, M.D.; Shearer, G.
Amsterdam : Elsevier Science Publishers; 1992 Oct30.

Journal of chromatography v. 624 (1/2): p. 471-477; 1992 Oct30. Includes references.

Language: English

Descriptors: Animal tissues; Drug residues; Food analysis; Food contamination; Carazolol; Neuroleptics; Detection; Hplc

125 NAL Call. No.: SF601.A46
Detomidine as a sedative and premedicant in the horse (1985-1990). Clarke, K.W.; Gerring, E.L.
Manhattan, Kan. : The Association; 1990.
Proceedings of the annual convention of the American Association of Equine Practitioners. p. 629-635; 1990.
Meeting held December 2-5, 1990, Lexington, KY. Includes references.

Language: English

Descriptors: Horses; Preanesthetic medication; Agonists

126 NAL Call. No.: SF951.J65
Detomidine hydrochloride versus xylazine plus morphine as sedative and analgesic agents for flank laparotomies and ovary and oviduct removal in standing mares.
Jochle, W.; Woods, G.L.; Little, T.V.; Hillman, R.B.; Ball, B.A. Lake Elsinore, Calif. : William E. Jones, DVM; 1991 Jul.
Journal of equine veterinary science v. 11 (4): p. 225-228; 1991 Jul. Includes references.

Language: English

Descriptors: Horses; Mares; Reproductive disorders; Ovariectomy; Oviducts; Surgical operations; Analgesics; Xylazine; Morphine; Laparotomy

127 NAL Call. No.: 41.8 V641
Detomidine-ketamine anaesthesia in chickens.
Mohammad, F.K.; Al-Badrany, M.S.; Al-Hasan, A.M.
London : The British Veterinary Association; 1993 Aug21.
The Veterinary record : journal of the British Veterinary Association v. 133 (8): p. 192; 1993 Aug21. Includes references.

Language: English

Descriptors: Chickens; Detomidine; Ketamine; Drug combinations

128 NAL Call. No.: KyUThesis 1992 Yang
Development of ELISA tests for acepromazine, fluphenazine and detomidine tranquilizers in performance horses.
Yang, Jyan-Ming,
1992; 1992.
x, 140 leaves : ill. ; 28 cm. Includes vita and abstract.
Includes bibliographic references (l. 124-136).

Language: English

Descriptors: Radioimmunoassay; Drug testing; Race horses

129 NAL Call. No.: 49 J82
The development of pain in young pigs associated with castration and attempts to prevent castration-induced behavioral changes.
McGlone, J.J.; Nicholson, R.I.; Hellman, J.M.; Herzog, D.N.

Champaign, Ill. : American Society of Animal Science; 1993 Jun. Journal of animal science v. 71 (6): p. 1441-1446; 1993 Jun. Includes references.

Language: English

Descriptors: Pigs; Pain; Castration; Analgesics; Animal welfare; Age differences; Animal behavior; Liveweight gain; Survival

Abstract: Four experiments were conducted to examine the development of castration-induced behavioral changes, the effects of castration age on pig weight gain, and the efficacy of common analgesics for use in castrated pigs. In Exp. 1, behavioral changes associated with castration of pigs at 1, 5, 10, 15, or 20 d of age were evaluated. Castration caused measurable changes (reduced suckling, reduced standing, and increased lying times, P < .05) in the behavior of young pigs compared with that of intact pigs at all ages tested. Effects of age and interactions between age and castration treatment were not significant (P > .10) for any behaviors evaluated. In Exp. 2, the performance of pigs castrated at 1 d of age was compared with the performance of those castrated on d 14 and female littermates. Birth weights, weaning weights, and mortality were recorded. Pigs that were castrated on d 14 were heavier (P = .05) at weaning and had a higher (P < .05) weight gain during lactation compared to pigs castrated on d 1 of age. Pig mortality was similar among the treatments. In Exp. 3 and 4, the efficacies of pain-reducing drugs (non-narcotic analgesics) were evaluated for effectiveness in reducing castration-induced behavioral changes in 8-wk-old pigs. Although castration reduced (P < .05) feeding time and weight gain, neither aspirin nor butorphanol influenced behavioral changes associated with castration. We conclude that pigs show similar behavioral changes (and probably pain perception) when castrated from 1 to 20 d of age. However, pig performance data favored castration at 14 d rather than at 1 d of age. Among older pigs, which show much greater behavioral effects of castration, analgesics (aspirin and butorphanol), used at recommended doses, provided no measurable effect on castration-induced behavioral changes.

130 NAL Call. No.: 41.8 Am3A
Differential artificial ventilation in anesthetized horses positioned in lateral recumbency.
Moens, Y.; Lagerweij, E.; Gootjes, P.; Poortman, J.
Schaumburg, Ill. : American Veterinary Medical Association; 1994 Sep. American journal of veterinary research v. 55 (9): p. 1319-1326; 1994 Sep. Includes references.

Language: English

Descriptors: Horses; Lung ventilation; Gas exchange; Respiratory gases; Position; Anesthesia

Abstract: Effects of differential ventilation on gas exchange were studied in 7 isoflurane-anesthetized, laterally recumbent horses, and were compared with effects of conventional ventilation, using similar minute volume. A tracheal tube-in-tube intubation technique allowed each lung to be connected separately to an anesthetic circle system with a ventilator. Two distribution patterns of tidal volume were investigated; half the tidal volume was distributed to each lung and two-thirds the tidal volume was distributed to the dependent lung. Effects of the combination of these patterns with positive end-expiratory pressure (PEEP) of 10 and 20 cm of H20 to the dependent lung were investigated. Differential ventilation maintained PaCO2, but significantly increased PaO2, from 180 to 270 mm of Hg (+44%) and decreased shunt perfusion from 22

to 19% (-15%), regardless of the distribution pattern used. Mean airway pressure was lower than the value detected during conventional ventilation. The combination of differential ventilation with selective PEEP was followed by a decrease in PaCO2 and further increase of PaO2 and decrease of shunt, which were similar for both distribution patterns. Effects of PEEP of 20 cm of H2O were more pronounced than those of PEEP of 10 cm of H2O. Owing to the combined effects of differential ventilation and selective PEEP, PaO2 increased to 399 mm of Hg and shunt decreased to 15%. This represents increase of 112% and decrease of 33% respectively, compared with values for conventional ventilation. Mean airway pressure increased maximally to 23 cm of H2O, which was 11 cm of H2O greater than the value for conventional ventilation. During differential ventilation, alveolar dead space in the dependent lung became greater than that in the nondependent lung and maximum was 39%. There were no significant changes in arterial blood pressure. Beneficial effects on gas exchange can be explained by improved matching of ventilation and perfusion, possibly attributable to reopening of previously dosed units in the dependent lung.

131 NAL Call. No.: 442.8 Am3
Dominant inheritance of overo spotting in paint horses.
Bowling, A.T.
New York, N.Y. : Oxford University Press; 1994 May.
The Journal of heredity v. 85 (3): p. 222-224; 1994 May.
Includes references.

Language: English

Descriptors: Horses; Paint; Color patterns; Inheritance; Autosomes; Dominance; Genes

Abstract: Analysis of selected studbook records of the American Paint Horse Association, consisting of 687 foals sired by 13 overo stallions from non-overo mares, supports the inheritance of overo spotting as an autosomal dominant gene. More than one gene may control patterns registered as overo. Additional studies are necessary to explain the sporadic occurrence of overo spotting from nonspotted quarter horse parents and to confirm the inheritance of overo spotting in other breeds.

132 NAL Call. No.: SF951.J65
Dose selection for detomidine as a sedative and analgesic in horses with colic from controlled and open clinical studies.
Jochle, W.
Lake Elsinore, Calif. : William E. Jones, DVM; 1990 Jan.
Journal of equine veterinary science v. 10 (1): p. 6-11; 1990 Jan. Includes references.

Language: English

Descriptors: Horses; Colic; Analgesics; Drug effects; Dosage effects; Duration

133 NAL Call. No.: 41.8 R312
Dose-response relationship of atracurium besylate in the halothane-anaesthetised pig.
Shorten, G.D.; Gibbs, N.M.
London : British Veterinary Association, 1960-; 1993 Nov.
Research in veterinary science v. 55 (3): p. 392-393; 1993 Nov. Includes references.

Language: English

Descriptors: Pigs; Muscle relaxants; Dosage; Halothane; Anesthesia

Abstract: The dose response relationship for the intermediate-acting non-depolarising muscle relaxant, atracurium besylate in the pig was determined using evoked electromyography. An incremental dose technique was used in seven Large White/Landrace crossbred pigs anaesthetised with nitrous oxide and halothane. ED50 and FD95 were 510 +/- 87 micrograms kg-1 and 1150 +/- 270 micrograms kg-1, respectively. Although these values may represent an overestimate, they provide a reasonable guideline for the use of atracurium by veterinary anaesthetists.

134 NAL Call. No.: SF955.E6
Doxapram infusion during halothane anaesthesia in ponies.
Taylor, P.M.
Newmarket : R & W Publications; 1990 Sep.
Equine veterinary journal v. 22 (5): p. 329-332; 1990 Sep.

Language: English

Descriptors: Horses; Anesthesia; Halothane; Doxapram; Analeptics; Respiratory system

135 NAL Call. No.: 41.8 AM3A
Dynamic baroreflex sensitivity in anesthetized horses, maintained at 1.25 to 1.3 minimal alveolar concentration of halothane.
Hellyer, P.W.; Dodam, J.R.; Light, G.S.
Schaumburg, Ill. : American Veterinary Medical Association; 1991 Oct. American journal of veterinary research v. 52 (10): p. 1672-1675; 1991 Oct. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Heart rate; Blood pressure; Reflexes; Xylazine; Ketamine; Halothane; Vasoconstrictor agents

Abstract: Dynamic baroreflex sensitivity for increasing arterial pressure (DBSI) was used to quantitatively assess the effects of anesthesia on the heart rate/arterial pressure relationship during rapid (less than or equal to 2 minutes) pressure changes in the horse. Anesthesia was induced with IV administration of xylazine and ketamine and maintained with halothane at a constant end-tidal concentration of 1.1 to 1.2% (1.25 to 1.3 minimal alveolar concentration). Systolic arterial pressure (SAP) was increased a minimum of 30 mm of Hg in response to an IV bolus injection of phenylephrine HCl. Linear regression was used to determine the slope of the R-R interval/SAP relationship. During dynamic increases in SAP, a significant correlation between R-R interval and SAP was observed in 8 of 8 halothane-anesthetized horses. Correlation coefficients between R-R interval and sap were > 0.80 in 5 of 8 horses. Mean (+/- SD) DBSI was 4.8 +/- 3.4 ms/mm of Hg in anesthetized horses. A significant correlation between R-R interval and SAP was observed in only 3 of 6 awake horses during dynamic increases in SAP. Lack of correlation between R-R interval and SAP in 3 of 6 awake horses indicated that rapidly increasing SAP with an IV phenylephrine bolus is a poor method to evaluate baroreceptor-mediated heart rate changes in awake horses. Reflex slowing of heart rate in response to a rising arterial pressure appeared to have been overridden by the effects of excitement. Mean (+/- SD) DBSI (3 horses) was 7.3 +/- 3.3 ms/mm of Hg in awake horses.

136 NAL Call. No.: 444.8 G28
Dynorphin modulates prolactin secretion in the turkey.
Youngren, O.M.; Silsby, J.L.; Phillips, R.E.; El Halawani, M.E. Orlando, Fla. : Academic Press; 1993 Aug.
General and comparative endocrinology v. 91 (2): p. 224-231; 1993 Aug. Includes references.

Language: English

Descriptors: Hens; Turkeys; Prolactin; Hormone secretion; Opioid peptides; Endorphins; Enkephalins; Hypothalamus; Infusion

Abstract: Big dynorphin (prodynorphin 209-240), dynorphin A (prodynorphin 209-225), dynorphin B (prodynorphin 228-240), beta-endorphin (beta-lipotrophin 61-90), or Met-enkephalin, each infused into the third ventricle, were tested for their effect on PRL release in the anesthetized turkey hen. Laying hens that received big dynorphin at the rate of 0.35 nmol/min showed a 5.1-fold increase in serum PRL at the end of a 30-min infusion period. In a second experiment, the big dynorphin-induced PRL increase was 2.6-fold. Nest-deprived, previously incubating hens that received big dynorphin displayed an 8.2-fold increase in serum PRL. Laying and nest-deprived incubating control birds infused with saline displayed no PRL increases. Laying hens that received dynorphin A (0.35 nmol/min) showed a 1.5-fold increase in serum PRL after 30 min of infusion; after 40 min of infusion, this increase rose to 2.7-fold. Infusions of beta-endorphin (0.35 nmol/min), or Met-enkephalin (0.35 nmol/min) failed to evoke PRL increases in either laying or nest-deprived incubating turkeys. Infusion of big dynorphin or dynorphin A for 120 min maintained an elevated PRL level across the period, a level equal to that evoked by electrical stimulation of the medial preoptic nucleus (ES/POM). Infusion of dynorphin B (0.48 nmol/min) or a reduced dose of dynorphin A (0.09 nmol/min) augmented the PRL response evoked by ES/POM. No augmentation was noted for beta-endorphin or Met-enkephalin, nor for saline-infused controls. The dynorphin-induced PRL response appeared to be dose-dependent. It appears that dynorphin is involved in the regulation of turkey PRL and that beta-endorphin and Met enkephalin, at the doses tested, are not.

137 NAL Call. No.: 41.8 AM3A
Effect of a specific platelet-activating factor antagonist on cardiovascular and peripheral cellular responses to colonic ischemia and reperfusion in anesthetized ponies.
Wilson, D.V.; Stick, J.A.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Mar. American journal of veterinary research v. 54 (3): p. 443-448; 1993 Mar. Includes references.

Language: English

Descriptors: Horses; Platelets; Phospholipids; Antagonists; Torsion; Colon; Ischemia; Immune response; Cardiovascular system; Pathogenesis

Abstract: The role of platelet-activating factor in mediating the cardiovascular and peripheral cellular responses to large-colon ischemia and reperfusion, was explored in anesthetized ponies. A specific platelet. activating factor (PAF) antagonist (WEB 2086) was administered to a group of 6 ponies, and another 6 ponies (controls) were given an equivalent volume of saline solution, prior to 1 hour of large-colon torsion. After correction of the torsion, ponies were monitored during the reperfusion period. Significant ($P < 0.05$) hypotension and metabolic acidosis developed in afl ponies after correction of colonic torsion, cardiac index

increased initially, but then decreased significantly (P < 0.05) over the study period. Mean times between correction of torsion and onset of cardiac failure and death were not different between groups. Significant (P < 0.05) thrombocytopenia developed during the reperfusion period in control ponies, but not in WEB-treated ponies. Blood leukocyte concentration in control ponies was more variable and significantly (P < 0.05) decreased immediately upon reperfusion, compared with that in WEB-treated ponies. We conclude that although the cardiovascular responses to colonic ischemia and reperfusion are not prevented by use of a specific PAF-antagonist, specific peripheral cellular responses are mediated by PAF.

138 NAL Call. No.: 41.8 AM3A
Effect of body posture on cardiopulmonary function in horses during five hours of constant-dose halothane anesthesia.
Steffey, E.P.; Kelley, A.B.; Hodgson, D.S.; Grandy, J.L.; Woliner, M.J.; Willits, N.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Jan. American journal of veterinary research v. 51 (1): p. 11-16; 1990 Jan. Includes references.

Language: English

Descriptors: Horses; Posture; Halothane; Anesthesia; Cardiovascular system; Respiratory system

Abstract: Cardiovascular and respiratory functions were serially characterized in 7 healthy, spontaneously breathing, adult horses (from which food had been withheld) during 5 hours of constant 1.06% alveolar halothane (end-expired halothane concentration of 1.06%; equivalent to 1.2 times the minimal alveolar anesthetic concentration for horses). To enable comparison of temporal results in relation to 2 body postures, horses were studied in lateral recumbency (LR) and dorsal recumbency (DR) on separate occasions. Temporal changes in results of measures of circulation previously reported from this laboratory for horses in LR were confirmed (ie, a time-related increase in systemic arterial blood pressure, cardiac output, stroke volume, and PCV). During DR, systemic arterial blood pressure was initially significantly (P < 0.05) greater and pulmonary artery pressure less than results at comparable periods during LR. Differences ceased to exist with duration of anesthesia. Except for a greater heart rate at hour 5 of DR, no other significant differences in circulation were found between LR and DR. In general, except for PaO2, measures of ventilation did not change with time in either LR or DR. The PaO2 was significantly greater during LR, compared with DR, but the average did not change significantly with time in either body posture.

139 NAL Call. No.: SF910.P34A55 1992
Effect of buffered lidocaine on epidural anesthesia in cattle.
Riebold, T.W.; Hawkins, J.K.; Crisman, R.O.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 303-306, 313-315; 1992. Includes references.

Language: English

Descriptors: Cattle; Anesthesia; Lidocaine; Local anesthetics

140 NAL Call. No.: 41.8 R312
Effect of carbon dioxide stunning on somatosensory evoked potentials in hens. Mohan Raj, A.B.; Gregory, N.G.; Wotton, S.B.

London : British Veterinary Association; 1990 Nov.
Research in veterinary science v. 49 (3): p. 355-359. ill;
1990 Nov. Includes references.

Language: English

Descriptors: Fowls; Hens; Stunning; Carbon dioxide;
Electroencephalograms; Convulsions; Animal welfare;
Anesthesia; Consciousness

141 NAL Call. No.: 41.8 R312
Effect of clenbuterol an arterial oxygen tension in the
anaesthetised horse. Gleed, R.D.; Dobson, A.
London : British Veterinary Association; 1990 May.
Research in veterinary science v. 48 (3): p. 331-337; 1990
May. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Oxygen; Arteries; Partial
pressure; Position; Drugs

142 NAL Call. No.: 41.8 AM3A
Effect of halothane, isoflurane, and pentobarbital anesthesia
on myocardial irritability in chickens.
Greenlees, K.J.; Clutton, R.E.; Larsen, C.T.; Eyre, P.
Schaumburg, Ill. : American Veterinary Medical Association;
1990 May. American journal of veterinary research v. 51 (5):
p. 757-758; 1990 May. Includes references.

Language: English

Descriptors: Chickens; Anesthesia; Halothane; Anesthetics;
Pentobarbital; Myocardium; Adverse effects

Abstract: The relative myocardial irritant properties of
halothane, isoflurane, and pentobarbital were evaluated in
chickens. Sixteen adult male broiler chickens were randomly
assigned to 1 of 3 groups: group-1 chickens were anesthetized
with pentobarbital (30 mg/kg, IV), group-2 chickens were
anesthetized with halothane (end tidal halothane 1.2%), and
group-3 chickens were anesthetized with isoflurane (end tidal
isoflurane 2.1%). Birds in any 2 of the 3 treatment groups
were tested on any 1 day. Local anesthesia was induced, and
blood pressure, heart rate, ECG, and blood gas variables were
measured before general anesthesia was induced. Positive-
pressure ventilation with an inspired O2 fraction > 0.95 was
adjusted to result in an end tidal CO2 concentration that
reflected a PaCO2 similar to that obtained prior to anesthesia
and ventilation. All measurements were repeated. The threshold
for ventricular fibrillation in response to electrical
stimulation of the heart was then determined for all birds.
Effects of anesthesia on hemodynamic and blood gas variables
were similar in all 3 groups. Compared with halothane or
pentobarbital, isoflurane anesthesia resulted in a
significantly ($P < 0.05$) lower threshold for electrical
fibrillation of the heart.

143 NAL Call. No.: 41.8 AM3A
Effect of high PaCO2 and time on cerebrospinal fluid and
intraocular pressure in halothane-anesthetized horses.
Cullen, L.K.; Steffey, E.P.; Bailey, C.S.; Kortz, G.; Da Silva
Curiel, J.; Bellhorn, R.W.; Woliner, M.J.; Elliott, A.R.;
Jarvis, K.A. Schaumburg, Ill. : American Veterinary Medical
Association; 1990 Feb. American journal of veterinary research
v. 51 (2): p. 300-304; 1990 Feb. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Halothane; Hypercapnia; Carbon dioxide; Partial pressure; Timing; Cerebrospinal fluid; Eyes (animal); Internal pressure

Abstract: The effects of different arterial carbon dioxide tensions (PaCO2) on cerebrospinal fluid pressure (CSFP) and intraocular pressure (IOP) were studied in 6 male halothaneanesthetized horses positioned in left lateral recumbency. Steady-state anesthetic conditions (1.06% end-tidal halothane concentration) commenced 60 minutes following anesthetic induction with only halothane in oxygen. During atracurium neuromuscular blockade, horses were ventilated, and respiratory rate and peak inspiratory airway pressure were maintained within narrow limits. The CSFP and IOP were measured at 3 different levels of PaCO2 (approx 40, 60, and 80 mm of Hg). The PaCO2 sequence in each horse was determined from a type of switchback design with the initial PaCO2 (period 1), established 30 minutes after the commencement of steady-state anesthesia, being repeated in the middle (period 3) and again at the end (period 5) of the experiment. Measurements taken from the middle 3 periods (2, 3, and 4) would form a Latin square design replicated twice. The interval between each period was approximately 45 minutes. Data from periods 2, 3, and 4 indicated that CSFP ($P < 0.05$) and mean systemic arterial pressure increased significantly ($P < 0.05$) with high PaCO2. Mean central venous pressure, heart rate, and IOP did not change significantly during these same conditions. Measurements taken during periods 1, 3, and 5 were compared to assess the time-related responses to anesthesia and showed a significant increase in CSFP, a significant decrease in mean central venous pressure, and a small (but not statistically significant) increase in mean systemic arterial pressure.

144 NAL Call. No.: 41.8 AM3A
Effect of hypercapnia on the arrhythmogenic dose of epinephrine in horses anesthetized with guaifenesin, thiamylal sodium, and halothane. Gaynor, J.S.; Bednarski, R.M.; Muir, W.W. III
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Feb. American journal of veterinary research v. 54 (2): p. 315-321; 1993 Feb. Includes references.

Language: English

Descriptors: Horses; Hypercapnia; Epinephrine; Dosage; Anesthesia; Guaifenesin; Halothane; Inhaled anesthetics; Arrhythmia

Abstract: The effect of hypercapnia on the arrhythmogenic dose of epinephrine (ADE) was investigated in 14 horses. Anesthesia was induced with guaifenesin and thiamylal sodium and was maintained at an end-tidal halothane concentration between 0.86 and 0.92%. Base-apex ECG, cardiac output, and facial artery blood pressure were measured and recorded. The ADE was determined at normocapnia (arterial partial pressure of carbon dioxide [Pa(CO2)] = 35 to 45 mm of Hg), at hypercapnia (Pa(CO2) = 70 to 80 mm of Hg), and after return to normocapnia. Epinephrine was infused at arithmetically spaced increasing rates (initial rate = 0.25 micrograms/kg of body weight/min) for a maximum of 10 minutes. The ADE was defined as the lowest epinephrine infusion rate, to the nearest 0.25 micrograms/kg/min, at which 4 premature ventricular complexes occurred in a 15-second period. The ADE (mean +/- SD) during hypercapnia (1.04 +/- 0.23 micrograms/kg/min) was significantly ($P < 0.05$) less than the ADE at normocapnia (1.35 +/- 0.38 micrograms/kg/min), whereas the ADE after

return to normocapnia (1.17 +/- 0.22 micrograms/kg/min) was not significantly different from those during normocapnia or hypercapnia. Baseline systolic and diastolic arterial pressures and cardiac output decreased after return to normocapnia. Significant differences were not found in arterial partial pressure of O2 (Pa(O2)) or in base excess during the experiment. Two horses developed ventricular fibrillation and died during normocapnic determinations of ADE. Hypercapnia was associated with an increased risk of developing ventricular arrhythmias in horses anesthetized with guaifenesin, thiamylal sodium, and halothane.

145 NAL Call. No.: SF911.V43
Effect of hypercapnia or xylazine on lateral ventricle and lumbosacral cerebrospinal fluid pressures in pentobarbital-anesthetized horses. Moore, R.M.; Trim, C.M.
Hagerstown, Md. : J.B. Lippincott Company; 1993 Mar.
Veterinary surgery v. 22 (2): p. 151-158; 1993 Mar. Includes references.

Language: English

Descriptors: Horses; Cerebrospinal fluid; Anesthesia

146 NAL Call. No.: SF915.J63
Effect of inhalation anaesthetics on total respiratory resistance in conscious ponies.
Hall, L.W.; Young, S.S.
Oxford : Blackwell Scientific Publications; 1992 Jun.
Journal of veterinary pharmacology and therapeutics v. 15 (2): p. 174-179; 1992 Jun. Includes references.

Language: English

Descriptors: Horses; Inhaled anesthetics; Halothane; Respiration; Resistance

147 NAL Call. No.: 41.8 Am3A
Effect of intramuscularly administered polysulfated glycosaminoglycan on articular cartilage from equine joints injected with methylprednisolone acetate.
Fubini, S.L.; Boatwright, C.E.; Todhunter, R.J.; Lust, G.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Aug. American journal of veterinary research v. 54 (8): p. 1359-1365; 1993 Aug. Includes references.

Language: English

Descriptors: Horses; Glycosaminoglycans; Intramuscular injection; Joints (animal); Prednisolone; Cartilage; Proteoglycans; Protein synthesis; Chondrocytes; Fibronectins

Abstract: Intra-articularly administered, long-acting corticosteroids are a beneficial treatment for many equine joint disorders because they alleviate inflammation and signs of pain, but they also exert detrimental effects on the biochemical composition and morphologic features of articular cartilage. Chondroprotective drugs have been shown to mitigate some of the deleterious effects of intra-articularly administered corticosteroids on articular cartilage of laboratory animals. Twenty-one ponies were assigned at random to receive 1 of 3 treatments in the right middle carpal joint. Group-1 ponies (n = 8) had methylprednisolone acetate (MPA; 0.2 mg/kg of body weight) andsaline solution administered intra-articularly and IM, respectively. Group-2 ponies (n = 9) received MPA (0.2 mg/kg) and polysulfated glycosaminoglycan (GAG; 2 mg/kg). Group-3 ponies (control; n = 4) had saline

solution administered intra-articularly and IM. The corticosteroid or saline solution was injected into the right middle carpal joint on day 1. The IM administered polysulfated GAG or saline solution was administered at the same time, then was repeated every 3 days for 20 days. Ponies were euthanatized 21 days after initial injection by overdose of pentobarbital sodium. The cartilage of younger ponies was significantly ($P < 0.05$) more responsive to the proteoglycan-depleting effects of MPA. Ponies < 10 years old of groups 1 and 2 had significantly ($P < 0.05$) lower GAG content in the articular cartilage than did control ponies. Systemic treatment with polysulfated GAG did not result in a protective effect against proteoglycan loss from the articular cartilage. Twenty-one days after MPA injection, difference in [35S]sulfate incorporation into proteoglycan, between either MPA-treated group and the control group, was not significant. There was an approximate tenfold increase in keratan sulfate concentration in synovial fluid from MPA-treated joints, compared with control joints. Chondroprotective effect of polysulfated GAG on the basis of keratan sulfate release from the articular cartilage into the synovial fluid was not observed. Methylprednisolone acetate caused a decrease in the fibronectin content of articular cartilage, but there was no effect of polysulfated GAG on the fibronectin content of MPA-treated articular cartilage.

148 NAL Call. No.: SF955.E6
Effect of low-dose butorphanol on halothane minimum alveolar concentration in ponies.
Matthews, N.S.; Lindsay, S.L.
Newmarket : R & W Publications; 1990 Sep.
Equine veterinary journal v. 22 (5): p. 325-327; 1990 Sep.
Includes references.

Language: English

Descriptors: Horses; Halothane; Analgesics

149 NAL Call. No.: 49 J82
Effect of preslaughter anesthesia on muscle metabolism and meat quality of pigs of different halothane genotypes.
Klont, R.E.; Lambooy, E.; Logtestijn, J.G. van
Champaign, Ill. : American Society of Animal Science; 1993 Jun. Journal of animal science v. 71 (6): p. 1477-1485; 1993 Jun. Includes references.

Language: English

Descriptors: Pigs; Porcine stress syndrome; Pigmeat; Meat quality; Genotypes; Halothane; Color; Postmortem changes; Muscle physiology; Blood chemistry; Metabolites; Enzyme activity

Abstract: Pigs of different halothane genotypes were anesthetized 45 min before slaughter. During the period of anesthesia blood samples and muscle biopsy samples were taken to investigate muscle energy metabolism by measuring different metabolites. After exsanguination, the same metabolites and some meat quality characteristics were determined. Minimal differences in resting muscle metabolism seemed to exist between the halothane genotypes. Some significant differences in ante- and postmortem metabolism were found, particularly in creatine and lactate concentrations, but these were not reflected in ultimate meat quality. None of the pigs showed PSE meat and there were no differences in muscle pH and temperature at 45 min and 18 h postmortem. However, rigor, drip loss, and color still showed a significant genotype effect. It was concluded that due to the method of anesthesia

there were no differences in muscle metabolism at the moment of slaughter. This may have led to a more uniform ultimate meat quality between pigs differing in their genetic susceptibility toward stress. There were differences in color and drip loss between the halothane genotypes that cannot be explained by differences in pH and carcass temperature at 45 min postmortem.

150 NAL Call. No.: 41.8 Am3A
Effect of ranitidine on healing of experimentally induced gastric ulcers in ponies.
MacAllister, C.G.; Sangiah, S.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Jul. American journal of veterinary research v. 54 (7): p. 1103-1107; 1993 Jul. Includes references.

Language: English

Descriptors: Horses; Antihistaminics; Gastric ulcer; Induction; Flunixin; Healing; Oral administration

Abstract: Thirty young ponies were examined endoscopically for evidence of gastric ulceration. Seven ponies had noninduced gastric ulcers present at the initial examination and were eliminated from the study. In an attempt to induce gastric ulcers experimentally, flunixin meglumine (1.1 mg/kg of body weight, IM, q 8 h) was administered for 7 days to the 23 ponies with endoscopically normal gastric mucosa. During the 7 days of flunixin administration, 11 ponies developed gastric ulcers that were appropriate for study. The 11 ponies were randomly allotted to 2 groups. Group-A (n = 5) and group-B (n = 6) ponies received ranitidine (4.4 mg/kg, PO, q 8 h) and corn syrup, respectively, until ulcers healed or for a maximum of 40 days. General anesthesia was induced every 3 to 5 days for visual evaluation of ulcer healing by use of a video endoscope. The earliest complete healing of gastric lesions observed in a corn syrup-treated pony was at 17 days. At 40 days, 3 of 5 and 3 of 6 ponies of the ranitidine and corn syrup-treated groups, respectively, had healed ulcers. Results of this study indicate that: noninduced gastric ulcers may be common in young ponies, flunixin meglumine may be effective in inducing gastric ulcers for gastric healing studies in young ponies, and ranitidine (4.4 mg/kg, q 8 h) is not significantly effective in accelerating healing of experimentally induced gastric ulcers in ponies under conditions of this study.

151 NAL Call. No.: 41.8 R312
Effect of rate of induction of carbon dioxide anaesthesia on the time of onset of unconsciousness and convulsions.
Mohan Raj, A.B.; Gregory, N.G.
London : British Veterinary Association; 1990 Nov. Research in veterinary science v. 49 (3): p. 360-363; 1990 Nov. Includes references.

Language: English

Descriptors: Fowls; Hens; Broilers; Stunning; Carbon dioxide; Convulsions; Anesthesia; Animal welfare; Dosage effects; Consciousness

152 NAL Call. No.: TP368.J6
Effect of slaughter method on the progress of rigor of rainbow trout (Salmo gairdneri) as measured by an image processing system.
Azam, K.; Strachan, N.J.C.; Mackie, I.M.; Smith, J.; Nesvadba, P. Oxford : Blackwell Scientific Publications; 1990 Oct.

International journal of food science and technology v. 25 (5): p. 477-482; 1990 Oct. Includes references.

Language: English

Descriptors: Trout; Food storage; Carbon dioxide; Anesthetics; Electrocution; Cold storage; Ice; Imagery; Slaughter; Measurement

153 NAL Call. No.: SF915.J63
The effect of the organophosphate trichlorfon on the neuromuscular blocking activity of atracurium in halothane-anesthetized horses.
Hildebrand, S.V.; Hill, T.; Holland, M.
Oxford : Blackwell Scientific Publications; 1989 Sep. Journal of veterinary pharmacology and therapeutics v. 12 (3): p. 277-282; 1989 Sep. Includes references.

Language: English

Descriptors: Horses; Trichlorfon; Halothane; Anesthesia; Muscle relaxants

154 NAL Call. No.: 49 J82
The effect of thiopentone-sodium anesthesia and surgery, relocation, grouping, and hydrocortisone treatment on the blood levels of cortisol, corticosteroid-binding globulin, and catecholamines in pigs. Dalin, A.M.; Magnusson, U.; Haggendal, J.; Nyberg, L.
Champaign, Ill. : American Society of Animal Science; 1993 Jul. Journal of animal science v. 71 (7): p. 1902-1909; 1993 Jul. Includes references.

Language: English

Descriptors: Pigs; Ovariectomy; Catecholamines; Anesthesia; Hydrocortisone; Epinephrine; Norepinephrine; Globulins

Abstract: Eight crossbred, ovariectomized gilts (Swedish Landrace X Swedish Yorkshire X Hampshire), with a mean age of 7.5 mo, were studied during anesthesia and surgery, control-sampling, relocation, and grouping during a period of 3 wk. Acute treatment with a hydrocortisone injection (5 mg, i.v.) was also given. Blood samples were taken frequently (every 10 min) during the intensive part of the experimental days. The blood samples were analyzed for catecholamines (CA), adrenaline (A) and noradrenaline (NA), cortisol, and corticosteroid-binding globulin (CBG). The surgical period with anesthesia and surgery showed significant effects on CA, cortisol, and CBG. The A level increased immediately after the surgery. A biphasic increase in the cortisol level was observed on the day of surgery; the greatest increase was seen when the animals had regained consciousness after surgery but still were drowsy and staggering. The CBG level decreased on the day after the surgery. The study showed that the levels of the analyzed substances were back to normal 2 d after surgery. During relocation and grouping there was a short, significant increase in CA and cortisol levels, whereas the CBG level was not affected. Treatment with hydrocortisone significantly increased the cortisol level, but no change was seen in plasma CA or CBG levels. In conclusion, anesthesia and surgery induced significant effects on the levels of CA, cortisol, and CBG in gilts and the animals needed 2 d to recover before regaining their normal condition. During relocation and a limited grouping period, the significant increases in CA and cortisol levels were of short duration and CBG did not change. The animals returned to their normal condition again a few hours later.

155 NAL Call. No.: 41.8 AM3A
Effect of xylazine on the arrhythmogenic dose of epinephrine in thiamylal/halothane-anesthetized horses.
Gaynor, J.S.; Bednarski, R.M.; Muir, W.W. III
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Dec. American journal of veterinary research v. 53 (12): p. 2350-2354; 1992 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthetics; Drug combinations; Drug effects

Abstract: The effect of xylazine on the arrhythmogenic dose of epinephrine (ADE) was studied in 9 horses. Anesthesia was induced by administration of guaifenesin (50 mg/kg of body weight, IV) followed by thiamylal (4 to 6 mg/kg, IV) and was maintained at 1 minimal alveolar concentration MAC) of halothane (0.89%). Base apex ECG and facial artery pressure were recorded. Epinephrine was infused in a sequence of arithmetically spaced increasing rates (initial rate 0.25 (Lg/kg/min) for a maximum of 10 minutes. The ADE was defined as the lowest epinephrine infusion rate to the nearest 0.25 microgram/kg/min at which at least 4 premature ventricular depolarizations occurred in a 15-second period. Xylazine (1.1 mg/kg, IV) was administered after the control ADE was determined. Xylazine did not significantly alter the ADE (control, 1.12 +/-0.38 microgram/kg/min; xylazine, 1.21 +/-0.46 microgram/kg/min). Blood pressure increased transiently for 8 minutes after xylazine administration. Baseline systolic and diastolic arterial pressures and heart rate were not significantly different from control baseline pressures and heart rate 15 minutes after xylazine administration. Blood pressure and heart rate increased significantly during control and xylazine ADE determinations. Significant differences in pH, PaO2, PaCO2, or base excess were not observed between baseline and ADE in the control or xylazine groups. One horse developed atrial fibrillation, and 2 horses developed ventricular fibrillation during ADE determinations.

156 NAL Call. No.: SF380.I52
Effect of yohimbine on xylazine-thiopental anaesthetized Creole goats. Mora, G.; Messen, J.; Cox, J.F.
Amsterdam ; New York : Elsevier,; 1993 Jul.
Small ruminant research : the journal of the International Goat Association v. 11 (2): p. 163-169; 1993 Jul. Includes references.

Language: English

Descriptors: Goats; Yohimbine; Anesthesia; Antagonists

157 NAL Call. No.: QL55.A1L3
An effective combination of anaesthetics for 6-h experimentation in the golden Syrian hamster.
Reid, W.D.; Davies, C.; Pare, P.D.; Pardy, R.L.
London : Royal Society of Medicine Services; 1989 Apr.
Laboratory animals v. 23 (2): p. 156-162; 1989 Apr. Includes references.

Language: English

Descriptors: Golden hamster; Anesthetics; Drug combinations; Pentobarbital; Urethane; Chloralose; Anesthesia

Abstract: The anaesthetics described for use in hamsters to

date are suitable for the perfomance of short-term experimentation. However, an anaesthetic regimen was required which would provide a stable preparation for 6 h and hence, a suitable combination was developed. In the first set of experiments, the effect of anaesthetics (chloralose, urethane, and pentobarbital) were examined alone and in combination on arterial blood measurements. In the second set of experiments the effect of the combination of anaesthetics on arterial blood measurements and minute ventilation was examined for up to 6 h. Chloralose, urethane and pentobarbital when used alone in the hamster were considered inadequate for our needs. Chloralose did not produce adequate surgical anaesthesia whereas urethane and pentobarbital resulted in marked respiratory depression. Urethane also produced a trend toward metabolic acidosis. In contrast, the combination of agents resulted in surgical anaesthesia and the arterial blood measurements were adequate. Further, the use of the combination of anaesthetics in hamsters resulted in a stable preparation where arterial blood measurements and minute ventilation were maintained in a good range for up to 6 h. The combination of chloralose, urethane and sodium pentobarbital in hamsters should prove useful in long-term non-recovery experimentation which requires early surgical intervention, minimal respiratory depression and an even depth of anaesthesia.

158 NAL Call. No.: 41.8 AM3A
Effects of a highly concentrated hypertonic saline-dextran volume expander on cardiopulmonary function in anesthetized normovolemic horses. Moon, P.F.; Snyder, J.R.; Haskins, S.C.; Perron, P.R.; Kramer, G.C. Schaumburg, Ill. : American Veterinary Medical Association; 1991 Oct. American journal of veterinary research v. 52 (10): p. 1611-1618; 1991 Oct. Includes references.

Language: English

Descriptors: Horses; Fluid therapy; Saline water; Dextran; Solutions; Anesthesia; Cardiovascular system; Respiratory system; Adverse effects

Abstract: Conventional fluid resuscitation is unsatisfactory in a small percentage of equine emergency surgical cases because the large volumes of fluids required cannot be given rapidly enough to adequately stabilize the horse. In anesthetized horses, the volume expansion and cardiopulmonary effects of a small volume of highly concentrated hypertonic saline-dextran solution were evaluated as an alternative initial fluid choice. Seven halothane-anesthetized, laterally recumbent, spontaneously ventilating, normovolemic horses were treated with a 25% NaCl-24% dextran 70 solution (HSD) at a dosage of 1.0 ml/kg of body weight, IV, infused over 10 minutes, and the effects were measured for 120 minutes after infusion. Plasma volume expansion was rapid and significant (from 36.6 +/- 4.6 ml/kg to 44.9 +/- 4.8 ml/kg) and remained significantly expanded for the duration of the experiment. Packed cell volume, total blood hemoglobin, and plasma protein concentrations significantly decreased, confirming rapid and sustained volume expansion with hemodilution. Cardiac index and stroke index immediately increased and remained high for the entire study (from 69.6 +/- 15.3 ml/min/kg to 106.6 +/- 28.4 ml/min/kg, and from 1.88 t 0.49 ml/beat/kg to 2.50 +/- 0.72 ml/beat/kg, respectively). Systemic vascular resistance significantly decreased immediately after HSD infusion and remained decreased for the duration of the study (from 1.41 +/- 0.45 mm of Hg/ml/min/kg to 0.88 t 0.22 mm of Hg/ml/min/kg). Arterial and venous blood oxygen content decreased significantly because of hemodilution, but actual oxygen transport transiently increased at the 10-minute measurement

before returning toward baseline. Plasma osmolality and sodium significantly increased and remained high for the entire 120 minutes (from 293 +/- 2 osm/L to 326 +/- 9 mosm/L, and from 142.8 +/- 3.3 mM/L to 159.0 +/- 6.2 mM/L, respectively). Urine output increased in 5 of 7 horses within minutes of HSD infusion, but the mean increase was

159 NAL Call. No.: SF910.P34A55 1992
The effects of alpha 2-adrenoreceptor agonist analgesia on the central nervous system in an equine model.
Short, C.E.; Kallfelz, F.A.; Otto, K.; Otto, B.; Wallace, R.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 421-430, 433-434; 1992. Includes references.

Language: English

Descriptors: Horses; Pain; Models; Alpha-adrenergic receptors; Agonists; Analgesics; Drug effects

160 NAL Call. No.: 41.8 R312
Effects of an infusion of dopamine on the cardiopulmonary effects of Escherichia coli endotoxin in anaesthetised horses.
Trim, C.M.; Moore, J.N.; Hardee, M.M.; Hardee, G.E.; Slade, E.A. London : British Veterinary Association; 1991 Jan.
Research in veterinary science v. 50 (1): p. 54-63; 1991 Jan. Includes references.

Language: English

Descriptors: Horses; Endotoxins; Escherichia coli; Dopamine; Halothane; Anesthesia; Cardiovascular system; Toxemia

161 NAL Call. No.: 41.8 Am3A
Effects of anesthesia induced and maintained by continuous intravenous administration of guaifenesin, ketamine, and xylazine in spontaneously breathing sheep.
Lin, H.C.; Tyler, J.W.; Welles, E.G.; Spano, J.S.; Thurmon, J.C.; Wolfe, D.F. Schaumburg, Ill. : American Veterinary Medical Association; 1993 Nov. American journal of veterinary research v. 54 (11): p. 1913-1916; 1993 Nov. Includes references.

Language: English

Descriptors: Sheep; Anesthesia; Guaifenesin; Ketamine; Xylazine; Intravenous injection; Respiratory gases

Abstract: Anesthesia was induced and maintained in 6 Suffolk wethers by continuous IV infusion of guaifenesin (50 mg/ml), ketamine (1 mg/ml), and xylazine (0.1 mg/ml) in 5% dextrose in water (triple drip) to assess the anesthetic and cardiopulmonary effects. All sheep were positioned in right lateral recumbency. Dosages of triple drip used for induction and maintenance of anesthesia were 1.2 +/- 0.02 ml/kg and 2.6 ml/kg/h, respectively. Lack of gross purposeful movement of sheep to electrical stimulation indicated that analgesia and muscular relaxation induced by triple trip were adequate for surgical procedures. Heart rates and arterial blood pressure remained unchanged from baseline values during a 1-hour period of anesthesia. Arterial blood pressures were measured indirectly, using an inflation cuff placed over the metatarsal artery at the heart level. Significant decrease in arterial partial pressure of O2 (PaO2), coupled with an increase in arterial partial pressure of CO2 (PaCO2), from baseline values was observed throughout the course of the study. Decrease in PaO2 was observed concomitantly with significant ($P < 0.05$)

increase in respiration rate. Changes in arterial blood gas tensions observed in this study were attributed to respiratory depressant effect induced by anesthetic drugs and right-to-left shunting, perfusion/ventilation mismatch, or both caused by right lateral recumbency. Administration of 100% O2 via the endotracheal tube reduced the magnitude of the decrease in PaO2. All sheep recovered smoothly and stood within 96.3 +/- 48.9 minutes after termination of triple drip administration.

162 NAL Call. No.: 421 J828
Effects of anesthetization and storage temperature on bluetongue virus recovery from Culicoides variipennis (Diptera: Ceratopogonidae) and sheep blood.
Work, T.M.; Sawyer, M.M.; Jessup, D.A.; Washino, R.K.; Osburn, B.I. Lanham, Md. : The Entomological Society of America; 1990 May. Journal of medical entomology v. 27 (3): p. 331-333; 1990 May. Includes references.

Language: English

Descriptors: Sheep; Cervidae; Infection; Bluetongue virus; Blood; Anesthesia; Field experimentation; Storage; Temperature; Culicoides variipennis; Disease vectors; Light traps

163 NAL Call. No.: 41.8 V641
Effects of atipamezole on xylazine sedation in ponies.
Luna, S.P.L.; Beale, N.J.; Taylor, P.M.
London : The Association; 1992 Mar28.
The Veterinary record : journal of the British Veterinary Association v. 130 (13): p. 268-271; 1992 Mar28. Includes references.

Language: English

Descriptors: Horses; Xylazine; Anesthesia; Antagonists; Drug antagonism; Drug effects

164 NAL Call. No.: 41.8 AM3A
Effects of atracurium administered by continuous intravenous infusion in halothane-anesthetized horses.
Hildebrand, S.V.; Hill, T. III
Schaumburg, Ill. : American Veterinary Medical Association; 1989 Dec. American journal of veterinary research v. 50 (12): p. 2124-2126; 1989 Dec. Includes references.

Language: English

Descriptors: Horses; Muscle relaxants; Injections; Halothane; Anesthesia; Adverse effects

Abstract: Atracurium (0.4 mg/ml in isotonic NaCl solution) was administered by IV infusion to 7 healthy adult horses for 2 hours. Over the 2-hour period, a 95 to 99% reduction of train-of-four hoof-twitch response was maintained by 0.17 +/- 0.01 mg of atracurium/kg of body weight/h, for a total of 161 +/- 6 mg of atracurium (mean +/- SEM) for horses 1 to 4, 6, and 7. Horse 5, a mare in estrus, required 0.49 mg of atracurium/kg/h to maintain comparable relaxation. Hoof-twitch recovery time from 10 to 75% of baseline strength was 19.8 +/- 2.5 minutes for all horses. The 10 to 75% recovery time for horse 5 was 18 minutes. Recovery time from discontinuation of halothane until standing was 86 +/- 14 minutes (range, 55 to 165 minutes). Horse 5 had a 165-minute recovery. Regarding recovery from anesthesia, 3 recoveries were rated as excellent, 1 recovery good, and 2 recoveries as fair. Horse 5 laid quietly until she stood with 1 strong, smooth effort.

165 NAL Call. No.: 41.8 Am3A
Effects of atropine on the arrhythmogenic dose of dobutamine in xylazine-thiamylal-halothane-anesthetized horses.
Light, G.S.; Hellyer, P.W.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Dec. American journal of veterinary research v. 54 (12): p. 2099-2103; 1993 Dec. Includes references.

Language: English

Descriptors: Horses; Atropine; Antihypertensive agents; Arrhythmia; Halothane

Abstract: We investigated the influence of parasympathetic tone on the arrhythmogenic dose of dobutamine in horses premedicated with xylazine, anesthetized with guaifenesin and thiamylal, and maintained on halothane in oxygen. Six horses were used in 12 randomized trials. In each trial, after end-tidal halothane concentration was stabilized at 1.1% (1.25 times minimum alveolar concentration [MAC]) in oxygen, either saline solution (0.02 ml/kg of body weight) or atropine (0.04 mg/kg) was administered IV. Five minutes later, dobutamine infusion was started at dosage of 2.5 micrograms/kg/min, IV. The dobutamine infusion was continued for 10 minutes, or until 4 or more premature ventricular complexes occurred within 15 seconds, or sustained narrow-complex tachyarrhythmia clearly not sinus in nature occurred. If the criteria for termination were not met, dobutamine infusion was increased by 2.5 micrograms/kg/min, after the hemodynamic variables had returned to baseline. The horses were allowed to recover, and were rested for at least 1 week before the second trial. The arrhythmogenic dose of dobutamine was calculated by multiplying the infusion rate by the elapsed time into infusion when arrhythmia occurred. There was significant difference between the arrhythmogenic dose of dobutamine (ADD) in saline-treated horses (mean +/-SEM, ADD 105.6 +/- 16.3 micrograms/kg) and atropinized horses (ADD 36.2 +/-8.7 micrograms/kg). There were no differences in the prearrhythmia or immediate postarrhythmia ventricular heart rate (HR) or systolic (SAP), diastolic (DAP), or mean (MAP) arterial pressures between treated and control groups. The change in hemodynamic variables from prearrhythmia to immediate postarrhythmia formation was not different between the 2 groups. Ventricular beats were clearly evident in 8 of the 12 arrhythmias meeting the criteria for establishing the ADD. These results indicate that atropine may lower the arrhythmogenic threshold for dobutamine in halothane-anesthetized horses.

166 NAL Call. No.: 41.8 AM3A
Effects of butorphanol tartrate on arterial pressure, jejunal blood flow, vascular resistance, O2 extraction, and O2 uptake in halothane-anesthetized ponies.
Stick, J.A.; Loeffler, B.S.; Arden, W.A.; Chou, C.C.
Schaumburg, Ill. : American Veterinary Medical Association; 1989 Aug. American journal of veterinary research v. 50 (8): p. 1202-1206. ill; 1989 Aug. Includes references.

Language: English

Descriptors: Horses; Analgesics; Drug effects; Halothane; Blood flow; Blood pressure; Jejunum; Oxygen consumption

Abstract: The effects of butorphanol tartrate on arterial pressure, jejunal blood flow, vascular resistance, oxygen extraction, and oxygen uptake were determined in 10 anesthetized ponies ventilated with a mixture of halothane and

100% oxygen, using isolated autoperfused jejunal segments. Physiologic saline solution or butorphanol tartrate (0.2 mg/kg of body weight) was administered as a single bolus into the left jugular vein. By 2 minutes, butorphanol decreased arterial blood pressure and intestinal blood flow, and increased intestinal oxygen extraction. However, intestinal vascular resistance and oxygen uptake were unaffected. Results of this study indicate that butorphanol tartrate induces a hypotension that secondarily decreases intestinal blood flow, but intestinal vascular resistance and metabolism are not adversely affected. We conclude that butorphanol tartrate does not compromise intestinal viability in halothane-anesthetized ponies and, therefore, may be a good analgesic choice for the equid destined for abdominal surgery.

167 NAL Call. No.: 41.8 R312
Effects of castration on behaviour and plasma cortisol concentrations in young lambs, kids and calves.
Mellor, D.J.; Molony, V.; Robertson, I.S.
London : British Veterinary Association; 1991 Sep.
Research in veterinary science v. 51 (2): p. 149-154; 1991 Sep. Includes references.

Language: English

Descriptors: Lambs; Kids; Calves; Castration; Hydrocortisone; Blood sampling; Handling; Stress; Corticotropin; Species differences; Adrenal glands; Pituitary

Abstract: Behavioural and cortisol responses to the husbandry practice of castration with tight rubber rings were investigated in lambs and kids one day after birth and in hand reared calves aged one to seven days. There were three treatments: control handling and blood sampling, castration and, in lambs and kids only, intravenous adrenocorticotrophin injection (ACTH). The integrated cortisol responses (area under the cortisol curve) in lambs and kids were least in control, intermediate in castrated and greatest in ACTH animals. No cortisol responses were detected in control or castrated calves. The incidences of behaviour used to assess the intensity of distress apparently experienced in the different species corresponded generally with the magnitudes of the cortisol responses. Behavioural and cortisol responses together suggested that the distress caused by castration was greatest in lambs, intermediate in kids and least but not necessarily absent in hand reared calves.

168 NAL Call. No.: 41.8 V641
Effects of chronic lameness on the concentrations of cortisol, prolactin and vasopressin in the plasma of sheep.
Ley, S.J.; Livingston, A.; Waterman, A.E.
London : The Association; 1991 Jul20.
The Veterinary record : journal of the British Veterinary Association v. 129 (3): p. 45-47; 1991 Jul20. Includes references.

Language: English

Descriptors: Sheep; Lameness; Hydrocortisone; Prolactin; Vasopressin; Blood plasma; Foot rot; Pain; Acute course; Chronic course

169 NAL Call. No.: 41.8 Am3A
Effects of clenbuterol hydrochloride on pulmonary gas exchange and hemodynamics in anesthetized horses.
Dodam, J.R.; Moon, R.E.; Olson, N.C.; Exposito, A.J.; Fawcett, T.A.; Huang, Y.C.; Theil, D.R.; Camporesi, E.; Swanson, C.R.

Schaumburg, Ill. : American Veterinary Medical Association; 1993 May. American journal of veterinary research v. 54 (5): p. 776-782; 1993 May. Includes references.

Language: English

Descriptors: Horses; Clenbuterol; Gas exchange; Oxygen; Carbon dioxide; Hemodynamics; Anesthesia

Abstract: We evaluated the effects of clenbuterol HCl (0.8 micrograms/kg, of body weight, IV), a beta 2, agonist, on ventilation-perfusion matching and hemodynamic variables in anesthetized (by IV route), laterally recumbent horses. The multiple inert gas elimination technique was used to assess pulmonary gas exchange. Clenbuterol HCl induced a decrease in arterial oxygen tension (from 57.0 +/- 1.8 to 49.3 +/- 1.2 mm of Hg; mean +/- SEM) as a result of increased shunt fraction (from 6.6 +/- 2.1 to 14.4 +/- 3.1%) and ventilation to regions with high ventilation-perfusion ratios. In contrast, no changes in these variables were found in horses given sterile water. In horses given clenbuterol HCl, O2 consumption increased from 2.23 +/- 0.18 to 2.70 +/-0.14 ml . min-1 . kg-1, and respiratory exchange ratio decreased from 0.80 +/- 0.02 to 0.72 +/- 0.01. Respiratory exchange ratio and O2 consumption were not significantly modified in sterile water-treated (control) horses. Clenbuterol HCl administration was associated with increased cardiac index (from 57.4 +/-4.0 to 84.2 +/- 6.3 ml . min-1 . kg- 1), decreased total peripheral vascular resistance (from 108.3 +/- 9.3 to 47.6 +/- 2.8 mm of Hg . s . kg . ml-1), and decreased pulmonary vascular resistance (from 31.3 +/- 3.8 to 13.6 +/- 0.7 mm of Hg . s . kg . ml-1). Our findings indicated that clenbuterol HCl may potentiate hypoxemia as a result of increased shunt fraction in horses anesthetized by the IV route, and caused changes in hemodynamic variables that were consistent with its ability to stimulate beta 2-adrenergic receptors.

170 NAL Call. No.: 41.8 R312
Effects of clinically occurring chronic lameness in sheep on the concentrations of plasma noradrenaline and adrenaline.
Ley, S.J.; Livingston, A.; Waterman, A.E.
London : British Veterinary Association; 1992 Jul.
Research in veterinary science v. 53 (1): p. 122-125; 1992 Jul. Includes references.

Language: English

Descriptors: Sheep; Lameness; Epinephrine; Norepinephrine; Blood plasma; Foot rot; Pain

Abstract: Plasma adrenaline (AD) and noradrenaline (NA) concentrations were measured by high performance liquid chromatography with electrochemical detection in blood samples from control and lame sheep. The lame sheep suffered from naturally occurring foot rot and showed behavioural characteristics normally associated with chronic pain. The lame sheep were scored both for impairment of gait and pathology of the foot and divided into mild and severely affected groups. Both the mildly and severely lame group showed a significant increase in plasma AD and plasma NA which tended to persist even after clinical resolution of the condition. The measurement of plasma AD and NA may provide information which can be used to assess animals experiencing chronic pain, when taken in conjunction with other parameters, such as nociceptive thresholds and plasma hormone levels.

171 NAL Call. No.: 41.8 V641
Effects of detomidine on equine oesophageal function as

studied by contrast radiography.
Watson, T.D.G.; Sullivan, M.
London : The Association; 1991 Jul27.
The Veterinary record : journal of the British Veterinary Association v. 129 (4): p. 67-69; 1991 Jul27. Includes references.

Language: English

Descriptors: Horses; Analgesics; Esophagus; Deglutition; Transit time; Peristalsis; Grass sickness

172 NAL Call. No.: 41.8 Am3
Effects of diazepam, acepromazine, detomidine, and xylazine on thiamylal anesthesia in horses.
Muir, W.W. III; Mason, D.E.
Schaumburg, Ill. : The Association; 1993 Oct01.
Journal of the American Veterinary Medical Association v. 203 (7): p. 1031-1038; 1993 Oct01. Paper presented at the "Symposium on Disaster Medicine", Minneapolis, Minnesota. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Preanesthetic medication; Barbiturates; Diazepam; Detomidine; Xylazine; Drug effects; Cardiovascular system; Respiratory system

173 NAL Call. No.: 41.8 AM3A
Effects of distention and neostigmine on jejunal vascular resistance, oxygen uptake, and intraluminal pressure changes in ponies.
Parks, A.H.; Stick, J.A.; Arden, W.A.; Chou, C.C.; Hengemuhle, S.M. Schaumburg, Ill. : American Veterinary Medical Association; 1989 Jan. American journal of veterinary research v. 50 (1): p. 54-58; 1989 Jan. Includes references.

Language: English

Descriptors: Horses; Intestinal diseases; Bloat; Neostigmine; Blood pressure; Oxygen consumption; Internal pressure; Intestines

Abstract: The influence of distention (high baseline intraluminal pressure) and neostigmine methylsulfate on intestinal vascular resistance, oxygen uptake, and intraluminal pressure changes (rhythmic contractions) was studied in terminal jejunal segments which were perfused at a constant rate, in 16 anesthetized ponies. When baseline intraluminal pressure was increased to 10 mm of Hg, the intestinal vascular resistance and amplitude of rhythmic contractions were increased. Neostigmine induced cyclic increases in amplitude of rhythmic contractions whether intraluminal pressure was 0 or 10 mm of Hg. Neostigmine also increased intestinal oxygen uptake at intraluminal pressures of 0 mm of Hg, but not at 10 mm of Hg, and vascular resistance was not altered at either intraluminal pressure. The results indicate that intestinal hemodynamics are adversely affected by distention. Further, neostigmine did not adversely affect intestinal hemodynamics while increasing rhythmic contractions, suggesting that neostigmine may be useful in the treatment of ileus in equids.

174 NAL Call. No.: 41.8 AM3A
Effects of exploratory laparotomy on plasma and peritoneal coagulation/fibrinolysis in horses.
Baxter, G.M.; Parks, A.K.; Prasse, K.W.

Schaumburg, Ill. : American Veterinary Medical Association; 1991 Jul. American journal of veterinary research v. 52 (7): p. 1121-1127; 1991 Jul. Includes references.

Language: English

Descriptors: Horses; Laparotomy; Blood plasma; Body fluids; Blood coagulation; Fibrinolysis; Adhesions; Blood proteins; Anticoagulants; Plasminogen; Fibrinogen

Abstract: Plasma and peritoneal fluid samples were collected before and after surgery from 6 horses undergoing a ventral midline exploratory laparotomy and from 6 anesthetized control horses. Coagulation/fibrinolytic components measured in the plasma and peritoneal fluid of these horses included the functional activity of antithrombin III, alpha-2 antiplasmin, plasminogen, and protein C, and the concentrations of fibrinogen and fibrin degradation products. Peritoneal fluid antithrombin III, fibrin degradation products, and plasminogen values were significantly increased after surgery (over time) in principal horses. Compared with control horses, postoperative peritoneal fluid from horses undergoing laparotomy had significantly increased antithrombin-III activity at 12 and 72 hours, alpha-2 antiplasmin activity at 24 hours, fibrin degradation product concentrations at 6, 12, 24, 72, 96, and 144 hours, plasminogen activity at 6, 12, 24, 48, 72, and 96 hours, and protein-C activity at 12, 24, 72, and 96 hours. There were no significant changes in the peritoneal fibrinogen concentration in principal horses. Plasma plasminogen activity was significantly decreased at 24 hours after surgery in principal horses, compared with controls. Changes were minimal in the remaining plasma coagulation/fibrinolytic components of horses undergoing laparotomy. Plasma and peritoneal fluid values of anesthetized control horses did not change.

175 NAL Call. No.: 41.8 AM3A
Effects of general anesthesia on myoelectric activity of the intestine in horses.
Lester, G.D.; Bolton, J.R.; Cullen, L.K.; Thurgate, S.M.
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Sep. American journal of veterinary research v. 53 (9): p. 1553-1557; 1992 Sep. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Xylazine; Ketamine; Thiopental; Ileum; Cecum; Colon; Electrical activity; Muscles; Drug effects; Intestinal motility; Halothane; Guaifenesin

176 NAL Call. No.: 41.8 AM3A
Effects of halothane and isoflurane on baroreflex sensitivity in horses. Hellyer, P.W.; Bednarski, R.M.; Hubbell, J.A.E.; Muir, W.W. III Schaumburg, Ill. : American Veterinary Medical Association; 1989 Dec. American journal of veterinary research v. 50 (12): p. 2127-2134; 1989 Dec. Includes references.

Language: English

Descriptors: Horses; Halothane; Anesthetics; Reflexes; Blood pressure

Abstract: Baroreflex sensitivity (BS) was used to quantitatively assess the effects of halothane and isoflurane on the heart rate/arterial pressure relationship during steady-state (10 minutes) and dynamic pressure changes in adult horses. Arterial pressure was decreased in response to nitroglycerin or sodium nitroprusside and increased in

response to phenylephrine HCl. Mean (+/-SEM) BS in awake horses was 28.9 +/- 2.6 and 13.2 +/- 2.0 ms/mm of Hg during steady-state decreases and increases in systolic arterial pressure (SAP), respectively. Halothane and isoflurane either significantly (P < 0.05) decreased or eliminated BS during steady-state decreases in SAP, with no significant differences detected between anesthetic agents. During steady-state decreases in SAP, significant (P < 0.05) correlation between R-R interval and arterial pressure was not observed for 6 of 10 and 4 of 11 halothane and isoflurane anesthesia periods, respectively. Halothane significantly (P < 0.05) decreased BS during steady-state increases in SAP to 7.9 +/- 0.6 and 6.5 +/- 1.1 ms/mm of Hg during low and high minimal alveolar concentration (MAC) multiples, respectively. Isoflurane decreased BS during steady-state increases in SAP to 9.6 +/- 1.5 and 6.6 +/- 1.1 ms/mm of Hg during low and high MAC anesthesia, respectively, with high MAC of isoflurane decreasing BS significantly (P < 0.05), compared with awake and low MAC values. Plasma catecholamine (epinephrine and norepinephrine) concentrations increased significantly (P < 0.05), compared with baseline values during steady-state vasodilator infusions in halothane- and isoflurane-anesthetized horses. Steady-state infusions of phenylephrine in anesthetized horses resulted in arrhythmia development, with premature atrial and ventricular complexes seen in halothane-anesthetized horses and increased heart rate and atrial premature complexes seen less frequently in isoflurane-anesthetized horses. Dynamic BS was 25.0 +/- 4.5 and 20.1 +/- 2.8 ms/mm of Hg f

177 NAL Call. No.: SF601.A47
Effects of hepatic P-450 enzyme inhibitors and inducers on the duration of xylazine + ketamine anesthesis in broiler chickens and mice. Roder, J.D.; Akkaya, R.; Amouzadeh, H.R.; Sangiah, S.; Burrows, G.; Qualls, C.W. Jr
Manhattan, Kan. : Kansas State University; 1993 Apr.
Veterinary and human toxicology v. 35 (2): p. 116-118; 1993 Apr. Includes references.

Language: English

Descriptors: Broilers; Xylazine; Anesthesia; Agonists; Ketamine; Enzyme activators; Liver; Microsomes; Enzyme inhibitors; Mice

178 NAL Call. No.: SF915.J63
Effects of hypertonic saline on myocardial contractility in anaesthetized. Hellyer, P.W.; Meyer, R.E.
Oxford [England] : Blackwell Scientific Publications, 1978-; 1994 Jun. Journal of veterinary pharmacology and therapeutics v. 17 (3): p. 211-217; 1994 Jun. Includes references.

Language: English

Descriptors: Pigs; Sodium chloride; Solutions; Heart; Muscle contraction; Anesthesia; Hemodynamics

179 NAL Call. No.: 41.9 AM37
The effects of intra-articular anesthesia on soft tissue- and bone-phase scintigraphy in the horse.
Trout, D.R.; Hornof, W.J.; Fisher, P.E.
Raleigh, N.C. : American College of Veterinary Radiology; 1991 Sep. Veterinary radiology v. 32 (5): p. 251-255; 1991 Sep. Includes references.

Language: English

Descriptors: Horses; Scintigraphy; Local anesthesia

180 NAL Call. No.: 410.9 P94
Effects of isoflurane anesthesia on glucose tolerance and insulin secretion in Yucatan minipigs.
Laber-Laird, K.; Smith, A.; Swindle, M.M.; Colwell, J.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1992 Dec. Laboratory animal science v. 42 (6): p. 579-581; 1992 Dec. Includes references.

Language: English

Descriptors: Miniature pigs; Inhaled anesthetics

Abstract: Isoflurane's effect on intravenous glucose tolerance and insulin secretion was studied in six Yucatan minipigs. Unanesthetized animals, with previously placed indwelling venous catheters, were tested while resting comfortably in slings. The same animals were then retested during isoflurane anesthesia. Serum glucose and insulin concentrations were measured at predetermined times in response to an intravenous bolus of dextrose. The glucose disappearance rate (k), baseline plasma insulin concentration, the area under the insulin response curve, and the insulinogenic index were significantly lower in the anesthetized animals than in controls. The results of this study indicate that anesthesia with isoflurane significantly alters the glucose/insulin response to an intravenous glucose tolerance test and, therefore, is unsuitable for studies when glucose tolerance is to be assessed.

181 NAL Call. No.: 41.8 AM3A
Effects of ketamine infusion on halothane minimal alveolar concentration in horses.
Muir, W.W. III; Sams, R.
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Oct. American journal of veterinary research v. 53 (10): p. 1802-1806; 1992 Oct. Includes references.

Language: English

Descriptors: Horses; Ketamine; Halothane; Requirements; Dosage effects; Hemodynamics; Anesthesia

Abstract: Eight adult horses were used in a study to determine ketamine's ability to reduce halothane requirement. To obtain steady-state plasma concentrations of 0.5, 1.0, 2.0, 4.0, and 8.0 microg/ml, loading doses and constant infusions for ketamine were calculated for each horse on the basis of data from other studies in which the pharmacokinetic properties of ketamine were investigated. Blood samples for determination of plasma ketamine concentrations were collected periodically during each experiment. Plasma ketamine concentrations were determined by capillary gas chromatography/mass spectrometry under electron-impact ionization conditions, using lidocaine as the internal standard. Halothane minimal alveolar concentration (MAC; concentration at which half the horses moved in response to an electrical stimulus) and plasma ketamine concentration were determined after steady-state concentrations of each ketamine infusion had been reached. Plasma ketamine concentrations > 1.0 microg/ml decreased halothane MAC. The degree of MAC reduction was correlated directly with the square root of the plasma ketamine concentration, reaching a maximum of 37% reduction at a plasma ketamine concentration of 10.8 +/- 2.7 microg/ml. Heart rate, mean arterial blood pressure, and the rate of increase of right ventricular pressure did not change with increasing plasma ketamine concentration and halothane

MAC reduction. Cardiac output increased significantly during ketamine infusions and halothane MAC reduction. Our findings suggest that plasma ketamine concentrations > 1.0 microm/ml reduce halothane MAC and produce beneficial hemodynamic effects.

182 NAL Call. No.: 41.8 AM3A
Effects of ketamine, xylazine, and a combination of ketamine and xylazine in Pekin ducks.
Ludders, J.W.; Rode, J.; Mitchell, G.S.; Nordheim, E.V.
Schaumburg, Ill. : American Veterinary Medical Association; 1989 Feb.
American journal of veterinary research v. 50 (2): p. 245-249; 1989 Feb. Includes references.

Language: English

Descriptors: Ducks; Ketamine; Xylazine; Drug combinations; Anesthesia; Adverse effects; Cardiovascular system; Respiratory system

Abstract: Effects of ketamine, xylazine, and a combination of ketamine and xylazine were studied in 12 male Pekin ducks (7 to 12 weeks old; mean [+/- SD] body weight, 3.1 +/- 0.3 kg). After venous and arterial catheterization and fixation of a temperature probe in the cloaca, each awake duck was confined, but not restrained, in an open box in a dimly lit room. Blood pressure and lead-II ECG were recorded. Three arterial blood samples were collected every 15 minutes over a 45-minute period (control period) and were analyzed for pHa, Paco2 and Pao2. After the control period, each duck was assigned at random to 1 of 3 drug groups: (1) ketamine (KET; 20 mg/kg of body weight, IV), (2) xylazine (XYL; 1 mg/kg, IV), and (3) KET + XYL (KET 20 mg/kg and XYL, 1 mg/kg; IV). Measurements were made at 1, 5, 10, 15, 30, 45, 60, and 90 minutes after drug administration. All ducks survived the drug study. Cloacal temperature was significantly (P less than or equal to 0.05) increased above control cloacal temperature at 90 minutes after the administration of ketamine, and from 10 through 90 minutes after administration of ketamine plus xylazine. In ducks of the KET group, pHa, Paco2, and Pao2, remained unchanged after administration of the drug. In ducks of the XYL group, pHa and Pao2 decreased significantly (P less than or equal to 0.05) from control values for all time points up to and including 15 minutes after drug administration. In ducks of the KET + XYL group, pHa and Pa02 were significantly (P less than or equal to 0.05) decreased at all time points up to and including 45 and 15 minutes, respectively, after administration of the drugs. In ducks of the XYL group, Paco2 increased significantly (P less than 0.05) during the first 15 minutes after drug administration, and for 45 minutes after administration of KET + XYL. Results indicated that ketamine when given alone to ducks, was not associated with pulmonary depression. There was drug-associated respiratory depression after IV admini

183 NAL Call. No.: 41.8 R312
Effects of local anaesthesia and intravenous naloxone on the changes in behaviour and plasma concentrations of cortisol produced by castration and tail docking with tight rubber rings in young lambs.
Wood, G.N.; Molony, V.; Fleetwood-Walker, S.M.; Hodgson, J.C.; Mellor, D.J. London : British Veterinary Association; 1991 Sep.
Research in veterinary science v. 51 (2): p. 193-199; 1991 Sep. Includes references.

Language: English

Descriptors: Lambs; Castration; Docking; Hydrocortisone; Lidocaine; Naloxone; Behavior change; Blood plasma; Pain; Local anesthesia

Abstract: The reliability of some behavioural and physiological indices used for the recognition and assessment of acute pain in lambs after castration and tail docking has been examined. Changes in the indices were measured after blocking neural activity with local anaesthetic (lignocaine) and after an opioid antagonist (naloxone) was administered. Six lambs, aged less than one week, were allocated randomly to each of six treatments. (i) control handling and blood sampling; (ii) castration plus tail docking with tight rubber rings; (iii) local anaesthesia; (iv) local anaesthesia followed by castration and tail docking; (v) intravenous naloxone only (0.2 mg kg-1); and (vi) intravenous naloxone followed by castration and tail docking. Local anaesthesia eliminated the behavioural and plasma cortisol changes which usually follow castration and tail docking. Naloxone had a limited effect on the increase in cortisol but altered the behaviour. The results support the view that such indices are useful for assessment of the response to acute pain and that, although endogenous opioids do reduce pain in young lambs after castration and tail docking, the effect is small.

184 NAL Call. No.: 41.9 AM37
The effects of regional perineural anesthesia on soft tissue and bone phase scintigraphy in the horse.
Trout, D.R.; Hornof, W.J.; Liskey, C.C.; Fisher, P.E.
Raleigh, N.C. : American College of Veterinary Radiology; 1991 May. Veterinary radiology v. 32 (3): p. 140-144; 1991 May. Includes references.

Language: English

Descriptors: Horses; Scintigraphy; Local anesthesia; Feet

185 NAL Call. No.: 41.8 AM3A
Effects of sodium hyaluronate on tendon healing and adhesion formation in horses.
Gaughan, E.M.; Nixon, A.J.; Krook, L.P.; Yeager, A.E.; Mann, K.A.; Mohammed, H.; Bartel, D.L.
Schaumburg, Ill. : American Veterinary Medical Association; 1991 May. American journal of veterinary research v. 52 (5): p. 764-773; 1991 May. Includes references.

Language: English

Descriptors: Horses; Hyaluronic acid; Tendons; Healing; Adhesions; Synovial sheaths; Medicinal properties

Abstract: Sodium hyaluronate reduces adhesions after tendon repair in rodents and dogs, and has been used in limited clinical trials in people. To evaluate its effect on tendon healing and adhesion formation in horses and to compare these effects with those of a compound of similar viscoelastic properties, a study was performed in horses, using a model of collagenase injection in the flexor tendons within the digital sheath. Eight clinically normal horses were randomly allotted to 2 groups. Adhesion formation between the deep digital flexor tendon and the tendon sheath at the pastern region was induced in the forelimbs of all horses. Using tenoscopic control, a 20-gauge needle was inserted into the deep digital flexor tendon of horses under general anesthesia and 0.2 ml of collagenase (2.5 mg/ml) was injected. The procedure was repeated proximally at 2 other sites, spaced 1.5 cm apart. A biopsy forceps was introduced, and a 5-mm tendon defect was created at each injection site. Group-A horses had 120 mg of

sodium hyaluronate (NaHA) gel injected into the tendon sheath of one limb. Group-B horses had methylcellulose gel injected at the same sites. The contralateral limbs of horses in both groups served as surgical, but noninjected, controls. Horses were euthanatized after 8 weeks of stall rest. Ultrasonographic evaluation revealed improved tendon healing after NaHA injection, but no difference in peritendinous adhesion formation. Tendon sheath fluid volume and hyaluronic acid (HA) content were greater in NaHA-treated limbs. Gross pathologic examination revealed considerably fewer and smaller adhesions when limbs were treated with NaHA. However, significant difference in pull-out strengths was not evident between NaHA-treated and control limbs. Histologically, the deep digital flexor tendon from the NaHA-treated limbs had reduced inflammatory cell infiltration, improved tendon structure, and less intratendinous hemorrhage. Treatment with methylcellulose had no significant effe

186 NAL Call. No.: 41.8 AM3A
Effects of xylazine and/or butorphanol or neostigmine on myoelectric activity of the cecum and right ventral colon in female ponies.
Rutkowski, J.A.; Ross, M.W.; Cullen, K.
Schaumburg, Ill. : American Veterinary Medical Association; 1989 Jul. American journal of veterinary research v. 50 (7): p. 1096-1101. ill; 1989 Jul. Includes references.

Language: English

Descriptors: Mares; Xylazine; Analgesics; Neostigmine; Drug effects; Cecum; Colon; Intestine motility; Muscles; Electromyography

Abstract: Effects of xylazine HCl (0.5 mg/kg of body weight, IV) and/or butorphanol tartrate (0.04 mg/kg, IV) or neostigmine methylsulfate (0.022 mg/kg, IV) on myoelectric activity of the cecum and right ventral colon were studied in 4 conscious female ponies. Eight bipolar Ag/AgCl electrodes were sequentially placed on the seromuscular layer of the cecum (6 electrodes) and right ventral colon (2 electrodes). Recordings began 30 minutes before and continued for 90 minutes after drug administration. Each drug or drug combination was studied on 2 occasions in each pony. Two major patterns of coordinated spike bursts were identified. A series of coordinated spike bursts began at the cecal base and was conducted to the cecal apex (pattern I). A series of coordinated spike bursts began at the cecal apex, traversed the cecum, cecocolic orifice, and right ventral colon and was termed a progressive pattern (pattern II). Xylazine administration caused a significant decrease in patterns I and II for 20 minutes (P less than 0.05). Butorphanol tartrate administration caused a significant decrease in the progressive pattern for 10 minutes (P less 0.05) without affecting the orally directed pattern. Administration of the combination of xylazine/butorphanol significantly decreased the frequency of pattern I for 40 minutes (P less than 0.05) and pattern II for 30 minutes (P less than 0.05). Neostigmine administration caused a significant increase in the frequency of pattern II for 30 minutes (P less than 0.05) without affecting pattern I (P greater than 0.05). Changes in conduction velocity of pattern I or II or the duration of spiking activity were not significantly different because of any treatment.

187 NAL Call. No.: 41.8 AM3A
Effects of xylazine butorphanol on cecal arterial blood flow, cecal mechanical activity, and systemic hemodynamics in horses.

Rutkowski, J.A.; Eades, S.C.; Moore, J.N.
Schaumburg, Ill. : American Veterinary Medical Association; 1991 Jul. American journal of veterinary research v. 52 (7): p. 1153-1158; 1991 Jul. Includes references.

Language: English

Descriptors: Horses; Xylazine; Cecum; Blood flow; Blood pressure; Cardiac output; Heart rate; Motility; Hemodynamics; Analgesics

Abstract: A chronic model with an ultrasonic transit time blood flow probe and strain gauge force transducers implanted on the cecum was used to evaluate cecal mechanical activity and cecal arterial blood flow in 4 conscious adult horses. Intravenous administration of xylazine (1.1 mg/kg of body weight) significantly decreased heart rate and cardiac output, but significantly increased diastolic pulmonary arterial pressure, mean pulmonary arterial pressure, carotid arterial pressure, and central venous pressure. Lateral cecal arterial blood flow after xylazine administration was decreased substantially more than was cardiac output, suggesting that xylazine caused constriction of the cecal vasculature. This effect of xylazine may have resulted from either a direct effect of xylazine on the cecal vasculature or from reflex vasoconstriction attributable to reduced cardiac output. Intravenous administration of butorphanol tartrate (0.1 mg/kg) did not significantly alter the hemodynamic responses to xylazine. Cecal mechanical activity, as measured by the motility index, was decreased for 120 minutes after administration of xylazine and for 150 minutes after administration of xylazine/butorphanol.

188 NAL Call. No.: 41.8 AM3A
Effects of xylazine on ventilation in horses.
Lavoie, J.P.; Pascoe, J.R.; Kurpershoek, C.J.
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Jun. American journal of veterinary research v. 53 (6): p. 916-920; 1992 Jun. Includes references.

Language: English

Descriptors: Horses; Xylazine; Dosage; Heart rate; Respiration rate; Tidal volume; Lung ventilation; Adverse effects; Respiratory gases; Pressure

Abstract: The effects of 3 commonly used dosages (0.3, 0.5, and 1.1 mg/kg of body weight, IV) of xylazine on ventilatory function were evaluated in 6 Thoroughbred geldings. Altered respiratory patterns developed with all doses of xylazine, and horses had apneic periods lasting 7 to 70 seconds at the 1.1 mg/kg dosage. Respiratory rate, minute volume, and partial pressure of oxygen in arterial blood (PaO2) decreased significantly ($P < 0.001$) with time after administration of xylazine, but significant differences were not detected among dosages. After an initial insignificant decrease at 1 minute after injection, tidal volume progressively increased and at 5 minutes after injection, tidal volume was significantly ($P < 0.01$) greater than values obtained before injection. Partial pressure of carbon dioxide in arterial blood (PaCO2) was insignificantly increased. After administration of xylazine at a dosage of 1.1 mg/kg, the mean maximal decrease in PaO2 was 28.2 +/- 8.7 mm of Hg and 22.2 +/- 4.9 mm of Hg, measured with and without a respiratory mask, respectively. Similarly, the mean maximal increase in PaCO2 was 4.5 +/-2.3 mm of Hg and 4.2 +/- 2.4 mm of Hg, measured with and without the respiratory mask, respectively. Significant interaction between use of mask and time was not detected, although the changes in PaO2 were slightly attenuated when horses were not masked. The

temporal effects of xylazine on ventilatory function in horses should be considered in selecting a sedative when ventilation is inadequate or when pulmonary function testing is to be performed.

189 NAL Call. No.: SF911.V43
Electroencephalographic power spectrum analysis as a monitor of anesthetic depth in horses.
Otto, K.; Short, C.E.
Hagerstown, Md. : J.B. Lippincott Company; 1991 Sep.
Veterinary surgery v. 20 (5): p. 362-371; 1991 Sep. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Electroencephalograms; Spectral analysis; Brain

190 NAL Call. No.: SF911.V43
Electroencephalography of detomidine-ketamine-halothane and detomidine-ketamine-isoflurane anesthetized horses during orthopedic surgery--a comparison.
Ekstrom, P.M.; Short, C.E.; Geimer, T.R.
Hagerstown, Md. : J.B. Lippincott Company; 1993 Sep.
Veterinary surgery v. 22 (5): p. 414-418; 1993 Sep. Includes references.

Language: English

Descriptors: Horses; Electroencephalograms; Anesthesia

191 NAL Call. No.: 41.8 R312
Electromyography of some respiratory muscles in the horse.
Hall, L.W.; Aziz, H.A.; Groenendyk, J.; Keates, H.; Rex, M.A.E. London : British Veterinary Association; 1991 May.
Research in veterinary science v. 50 (3): p. 328-333; 1991 May. Includes references.

Language: English

Descriptors: Horses; Muscles; Diaphragm; Abdomen; Electromyography; Anesthesia

Abstract: To investigate activity in respiratory muscles, insulated wire electrodes were used to record electromyographic activity in the costal diaphragm and in the intercostal, serratus ventralis, internal abdominal oblique, transversalis and rectus abdominis muscles in conscious horses and in the same animals when anaesthetised. Electromyographic activity was related to respiratory phases as recorded by a stethograph around the chest wall. The costal diaphragm showed tonic and inspiratory activity in both conscious and anaesthetised animals. The principal muscle actively involved in expiration was the transversalis muscle. Intercostal muscle activity, and any increased activity in the second part of either inspiration or expiration recorded in the conscious animal, was absent under anaesthesia. The very marked tonic activity found in the serratus ventralis muscle in standing horses disappeared during anaesthesia. It was concluded that any stabilisation of the chest wall contributed by activity in the serratus ventralis and intercostal muscles in conscious, standing horses is greatly reduced during anaesthesia.

192 NAL Call. No.: SF915.J63
Eltenac, a new anti-inflammatory and analgesic drug for horses: clinical aspects.

Prugner, W.; Huber, R.; Luhmann, R.
Oxford : Blackwell Scientific Publications; 1991 Jun.
Journal of veterinary pharmacology and therapeutics v. 14 (2): p. 193-199; 1991 Jun. Includes references.

Language: English

Descriptors: Horses; Antiinflammatory agents; Analgesics; Pharmacokinetics; Intravenous injection; Dosage; Drug effects; Pain; Inflammation

193 NAL Call. No.: SF604.R37 no.215
Embryo transfer in sheep & goats 15-18 July, 1993.
Jackson, Peter
Sydney South, NSW, Australia : Post Graduate Committee in Veternary Science, University of Sydney,; 1993.
vi, 126 p. : ill. ; 27 cm. (Refresher course for veterinarians ; Proceedings ; no. 215.). Venue: Stephen Roberts Lecture Theatre, University of Sydney. Includes bibliographical references and index.

Language: English

Descriptors: Sheep; Goats

194 NAL Call. No.: 41.8 M69
Employing intra-articular anesthesia to detect joint lesions in lame horses. Gibson, K.T.; Stashak, T.S.
Lenexa, Kan. : Veterinary Medicine Publishing Company; 1989 Nov. Veterinary medicine v. 84 (11): p. 1088-1090, 1092. ill; 1989 Nov. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Lameness; Joints (animal); Diagnostic techniques

195 NAL Call. No.: SF601.C66
Endotracheal intubation of cattle under xylazine hydrochloride sedation in the field.
Floyd, J.G. Jr; Randle, R.F.
Lawrenceville, N.J. : Veterinary Learning Systems Company; 1989 Oct. The Compendium on continuing education for the practicing veterinarian v. 11 (10): p. 1302-1305. ill; 1989 Oct. Includes references.

Language: English

Descriptors: Cattle; Anesthesia; Xylazine; Trachea; Tubes; Surgical operations

196 NAL Call. No.: 41.8 R312
Enhancement of tetrathiomolybdate-induced biliary copper excretion in sheep by general anaesthesia and the effect on copper excretion in urine and bile. Ke, Y.; Symonds, H.W.
London : British Veterinary Association; 1989 May.
Research in veterinary science v. 46 (3): p. 344-348; 1989 May. Includes references.

Language: English

Descriptors: Sheep; Thiomolybdates; Copper; Excretion; Bile; Urine; Saliva; Anesthesia; Poisoning

197 NAL Call. No.: SF780.9.S63

Epidemiological aspects of the Confidential Enquiry of Perioperative Equine Fatalities (CEPEF) and some preliminary results.
Johnston, G.M.
Great Britain : The Society, 1983-; 1994.
Proceedings of a meeting held at the ... on the ... /. p. 174-184; 1994. Meeting held on April 13-15, 1994, Belfast.
Includes references.

Language: English

Descriptors: Horses; Mortality; Postoperative complications; Longitudinal studies; Anesthesia; Sex differences; Risk; Surgical operations; Breed differences; Seasonal variation; Age differences; Anesthetics

198 NAL Call. No.: 41.8 AM3
Epidural analgesia with 0.75% bupivacaine for laparotomy in goats. Trim, C.M.
Schaumburg, Ill. : The Association; 1989 May01.
Journal of the American Veterinary Medical Association v. 194 (9): p. 1292-1296; 1989 May01. Includes references.

Language: English

Descriptors: Goats; Analgesics; Laparotomy; Lidocaine; Duration; Adverse effects

199 NAL Call. No.: 41.8 M69
Epidural injection of xylazine: A new operation for surgical analgesia of the bovine abdomen and udder.
Zaugg, J.L.; Nussbaum, M.
Lenexa, Kan. : Veterinary Medicine Publishing Company; 1990 Sep.
Veterinary medicine v. 85 (9): p. 1043-1046; 1990 Sep.
Includes references.

Language: English

Descriptors: Cattle; Xylazine; Conduction anesthesia; Abdomen; Udders; Surgical operations

200 NAL Call. No.: SF951.E62
Equine anesthesia: blood pressure and monitoring.
Keegan, R.D.; Greene, S.A.
Santa Barbara, Calif., : Veterinary Practice Pub. Co. : 1979-; 1994 Jul.
Equine practice v. 16 (7): p. 26-33; 1994 Jul.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Blood pressure; Monitoring; Measurement; Cardiovascular system; Cardiac output; Hypotension; Drug therapy

201 NAL Call. No.: SF951.E54 1991
Equine anesthesia monitoring and emergency therapy.
Muir, William,_1946-; Hubbell, John A. E.
St. Louis : Mosby-Year Book,; 1991.
xi, 515 p. : ill. ; 28 cm. Includes index. Includes bibliographical references and index.

Language: English

Descriptors: Horses; Veterinary anesthesia

202 NAL Call. No.: SF601.C66
Equine keratomycosis.
Barton, M.H.
Trenton, N.J. : Veterinary Learning Systems Company, Inc; 1992 Jul. The Compendium on continuing education for the practicing veterinarian v. 14 (7): p. 936-944, 950; 1992 Jul. Literature review. Includes references.

Language: English

Descriptors: Horses; Mycotic keratitis; Cornea; Drug therapy; Antifungal agents; Antibacterial agents; Symptoms; Diagnosis; Analgesics; Prognosis; Literature reviews

203 NAL Call. No.: 41.8 R312
Equine postanaesthetic myositis: a possible role for free radical generation and membrane lipoperoxidation.
Serteyn, D.; Mottart, E.; Deby, C.; Deby-Dupont, G.; Pincemail, J.; Philipart, C.; Lamy, M.
London : British Veterinary Association; 1990 Jan.
Research in veterinary science v. 48 (1): p. 42-46; 1990 Jan.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Halothane; Adverse effects; Muscular diseases; Free radicals; Lipid peroxidation; Membranes; Blood plasma

204 NAL Call. No.: SF601.C66
Equine postanesthetic myopathy: an update.
Hennig, G.E.; Court, M.H.
Trenton, N.J. : Veterinary Learning Systems Company, Inc; 1991 Nov. The Compendium on continuing education for the practicing veterinarian v. 13 (11): p. 1709-1716; 1991 Nov. Literature review. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Muscular diseases; Symptoms; Pathology; Postoperative care; Treatment; Drug therapy; Postoperative complications; Etiology; Prevention; Literature reviews

205 NAL Call. No.: SF951.J65
Equine sports therapy.
Porter, M.
Lake Elsinore, Calif. : William E. Jones, DVM; 1992 May.
Journal of equine veterinary science v. 12 (3): p. 193-194; 1992 May. Includes references.

Language: English

Descriptors: Horses; Sports medicine; Pain; Therapy

206 NAL Call. No.: SF955.E6
The equine stress response to anaesthesia.
Muir, W.W.
Newmarket : R & W Publications; 1990 Sep.
Equine veterinary journal v. 22 (5): p. 302-303; 1990 Sep.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Stress response; Drug therapy

207 NAL Call. No.: SF951.V47
Equipment for inhalation anesthesia.
Eicker, S.W.; Cuvelliez, S.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 543-555; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Inhaled anesthetics; Equipment; Catheters; Ventilators; Oxygen transport; Halothane

208 NAL Call. No.: DISS F1993130
Erfolgskontrolle der intraartikularen Natriumhyaluronatbehandlung bei Pferden mit positiver tiefer Palmarnervenanasthesie anhand der Hufgelenksdruckmessung mit dem Stryker-Intra-Compartmental-Pressure-Monitor-System [Controlling the success of intraarticular treatment with sodium hyaluronate in horses with positive deep anaesthesia of the nervi digitales palmares by pressure measurement in the coffin joint with the Stryker intracompartmental pressure monitor system].
Rupp, Andreas
Hannover : [s.n.],; 1993.
104 p. : ill. ; 21 cm. Summary in English. Includes bibliographical references (p. 80-104).

Language: German

209 NAL Call. No.: SF911.V43
Evaluation of 25%, 50%, and 67% nitrous oxide with halothane-oxygen for general anesthesia in horses.
Testa, M.; Raffe, M.R.; Robinson, E.P.
Hagerstown, Md. : J.B. Lippincott Company; 1990 Jul.
Veterinary surgery v. 19 (4): p. 308-312; 1990 Jul. Includes references.

Language: English

Descriptors: Horses; Anesthetics; Nitrous oxide; Halothane; Oxygen

210 NAL Call. No.: SF601.B6
Evaluation of a xylazine-butorphanol combination for use during standing laparotomy in dairy cattle.
Levine, H.D.; Dodman, N.H.; Court, M.H.; Hustead, D.
Santa Barbara, Calif. : Veterinary Practice Publishing Company; 1992 Jul. Agri-Practice v. 13 (7): p. 19-23; 1992 Jul. Includes references.

Language: English

Descriptors: Massachusetts; Dairy cattle; Laparotomy; Xylazine; Anesthesia; Surgery

211 NAL Call. No.: 41.8 Am3
Evaluation of lidocaine, xylazine, and a combination of lidocaine and xylazine for epidural analgesia in llamas.
Grubb, T.L.; Reibold, T.W.; Huber, M.J.
Schaumburg, Ill. : The Association; 1993 Nov15.
Journal of the American Veterinary Medical Association v. 203 (10): p. 1441-1444; 1993 Nov15. Includes references.

Language: English

Descriptors: Llamas; Lidocaine; Xylazine; Drug combinations; Conduction anesthesia; Duration; Pulse rate; Respiration rate

212 NAL Call. No.: SF911.V43
Evaluation of pentobarbital as a drug for standing sedation in cattle. Valverde, A.; Doherty, T.J.; Dyson, D.; Valliant, A.E. Philadelphia, Pa. : J.B. Lippincott Company; 1989 May. Veterinary surgery v. 18 (3): p. 235-238; 1989 May. Includes references.

Language: English

Descriptors: Cattle; Anesthesia; Pentobarbital; Evaluation

213 NAL Call. No.: 41.8 Am3A
Evaluation of quantitative acid-base balance and determination of unidentified anions in swine.
Frischmeryer, K.J.; Moon, P.F.
Schaumburg, Ill. : American Veterinary Medical Association; 1994 Aug. American journal of veterinary research v. 55 (8): p. 1153-1157; 1994 Aug. Includes references.

Language: English

Descriptors: Pigs; Acid base equilibrium; Hemorrhage; Anesthesia; Blood; Gases; Sodium; Potassium; Lactic acid; Chloride; Blood proteins; Hydrogen ions; Equations; Models; Accuracy; Ions; Anions

Abstract: Arterial blood samples were collected from 19 anesthetized pigs before and after hemorrhage was induced. Blood gas tensions and concentrations of sodium, potassium, chloride, lactate, and total protein were measured. Results indicated that hydrogen ion (H+) concentration calculated from a specific formula was a biased and imprecise estimate of measured H+ concentration. The bias was 5.45 nEq/L, with limits of agreement from -7.92 to 18.83 nEq/L. Because albumin is the fraction of plasma protein most important in acid-base balance, the agreement between predicted and measured H+ concentration was reevaluated, using an albumin charge estimate and a reference swine albumin-to-globulin ratio. This improved the ability of the formula to predict H+ concentration; the bias decreased to 1.33 nEq/L with limits of agreement from -12.16 to 9.49 nEq/L. The formula and a simplified approach for clinical application were biased and unacceptably imprecise estimators of lactate (L-) concentration. The formula approach underestimated L- concentration by 2.8 (-12.4, 6.7) mEq/L, whereas the simplified method overestimated L- concentration by 5.0 (-3.8, 13.9) mEq/L.

214 NAL Call. No.: SF601.B6
Evaluation of sedative and analgesic properties of detomidine in goats. Clark, T.P.; Purohit, R.C.; Wilson, R.C.
Santa Barbara, Calif. : Veterinary Practice Publishing Company; 1993 Apr. Agri-Practice v. 14 (4): p. 29-33; 1993 Apr. Includes references.

Language: English

Descriptors: Alabama; Goats; Analgesics; Adverse effects

215 NAL Call. No.: 41.8 Am3A
Evaluation of the effect of alfentanil on the minimum alveolar concentration of halothane in horses.
Pascoe, P.J.; Steffey, E.P.; Black, W.D.; Claxton, J.M.;

Jacobs, J.R.; Woliner, M.J.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Aug. American journal of veterinary research v. 54 (8): p. 1327-1332; 1993 Aug. Includes references.

Language: English

Descriptors: Horses; Opioids; Dosage; Halothane; Concentration; Dosage effects; Anesthesia; Pharmacokinetics; Blood pressure; Body temperature

Abstract: The effect of 3 plasma concentrations of alfentanil on the minimum alveolar concentration (MAC) of halothane in horses was evaluated. Five healthy geldings were anesthetized on 3 occasions, using halothane in oxygen administered through a mask. After induction of anesthesia, horses were instrumented for measurement of blood pressure, airway pressure, and end-tidal halothane concentrations. Blood samples, for measurement of pH and blood gas tensions, were taken from the facial artery. Positive pressure ventilation was begun, maintaining PaCO2 at 49.1 +/- 3.3 mm of Hg and airway pressure at 20 +/- 2 cm of H2O. The MAC was determined in triplicate, using a supramaximal electrical stimulus of the oral mucous membranes. Alfentanil infusion was then begun, using a computer-driven infusion pump to achieve and maintain 1 of 3 plasma concentrations of alfentanil. Starting at 30 minutes after the beginning of the infusion, MAC was redetermined in duplicate. Mean +/- SD measured plasma alfentanil concentration during the infusions were 94.8 +/- 29.0, 170.7 +/- 29.2 and 390.9 +/- 107.4 ng/ml. Significant changes in MAC were not observed for any concentration of alfentanil. Blood pressure was increased by infusion of alfentanil and was dose-related, but heart rate did not change. Pharmacokinetic variables of alfentanil weredetermined after its infusion and were not significantly different among the 3 doses.

216 NAL Call. No.: 410.9 P94
External thoracic duct-venous shunt in conscious pigs for long term studies of connective tissue metabolites in lymph.
Jensen, L.T.; Olesen, P.; Risteli, J.; Lorenzen, I.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1990 Nov. Laboratory animal science v. 40 (6): p. 620-624; 1990 Nov. Includes references.

Language: English

Descriptors: Pigs; Animal models; Lymph; Metabolites; Blood serum; Connective tissue; Surgical operations; Thoracic duct; Collagen; Animal proteins

Abstract: An experimental animal model for lymph studies is described. Thoracic duct-venous shunt was established in 12 pigs. Shunt patency averaged 5.5 days. The composition of connective tissue metabolites in lymph and serum were investigated during a standardized surgical operation (thoracotomy) under general anesthesia. We measured the carboxyterminal propeptide of type I procollagen (PICP), the aminoterminal propeptide of type III procollagen (PIIINP) hyaluronan (HA) and total protein. During surgery/anesthesia lymph PICP ($p < 0.04$), lymph PIIINP ($p < 0.03$) and serum PIIINP ($p < 0.01$) and serum PIIINP ($p < 0.03$) increased. The changes may be explained by the inactive physical state of the animals. HA showed wide variations, with a tendency like PIIINP In conscious animals the lymph/serum ratio of PIIINP and HA were 10 and 35, respectively, indicating that lymph is a major route of tissue clearance for these components. The lymph/serum ratio of PICP was 1.0 in conscious pigs, indicating a direct release into the circulation. Total

protein in lymph decreased ($p < 0.04$) during surgery/anesthesia, whereas no changes were observed in serum. Pigs can be used instead of dogs and sheep in studies on lymph. The effect of surgery/anesthesia must be taken into consideration.

217 NAL Call. No.: SF955.E6
Factors influencing the outcome of equine anaesthesia: a review of 1,314 cases.
Young, S.S.; Taylor, P.M.
Newmarket : R & W Publications; 1993 Mar.
Equine veterinary journal v. 25 (2): p. 147-151; 1993 Mar.
Includes references.

Language: English

Descriptors: Uk; Horses; Surgery; Anesthesia; Muscular diseases

218 NAL Call. No.: SF955.E6
Failure of intra-articular anaesthesia of the antebrachiocarpal joint to abolish lameness associated with chip fracture of the distal radius. Shepherd, M.C.; Pilsworth, R.C.
Newmarket : R & W Publications; 1993 Sep.
Equine veterinary journal v. 25 (5): p. 458-461; 1993 Sep.
Includes references.

Language: English

Descriptors: Horses; Bone fractures; Local anesthesia

219 NAL Call. No.: 41.8 R3224
Fatal body positioning during epidural anesthesia in a ewe.
Clutton, R.E.; Boyd, C.; Ward, J.L.; Sponenberg, D.P.
Ottawa : Canadian Veterinary Medical Association; 1989 Sep.
The Canadian veterinary journal v. 30 (9): p. 748-750; 1989 Sep. Includes references.

Language: English

Descriptors: Ewes; Conduction anesthesia; Hypotension; Death; Lidocaine; Caesarean section; Venous circulation; Case reports

220 NAL Call. No.: SF601.C66
Field management of simple intestinal obstruction in horses.
Doran, R.
Trenton, N.J. : Veterinary Learning Systems Company; 1993 Mar.
The Compendium on continuing education for the practicing veterinarian v. 15 (3): p. 463-471, 482; 1993 Mar. Includes references.

Language: English

Descriptors: Horses; Intestinal obstruction; Stomach; Analgesics; Colic

221 NAL Call. No.: SF601.A46
Fluid therapy in the acutely injured of exhausted horse.
Becht, J.L.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 505-508; 1989.
Meeting held December 4-7, 1988, San Diego, CA. Includes references.

Language: English

Descriptors: Horses; Fluids; Therapy; Shock; Exhaustion; Dehydration (physiological); Analgesics; Trauma; Injuries; Rehydration

222 NAL Call. No.: SF601.A46
Foal Anesthesia.
Hodgson, D.S.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 549-554; 1989. Meeting held December 4-7, 1988, San Diego, CA. Includes references.

Language: English

Descriptors: Foals; Anesthesia; Neonates; Techniques; Anesthetics

223 NAL Call. No.: RS160.J6
From ethnobotanical uses of Strychnos henningsii to antiinflammatories, analgesics and antispasmodics.
Tits, M.; Damas, J.; Quetin-Leclercq, J.; Angenot, L.
Limerick : Elsevier Scientific Publishers; 1991 Sep.
Journal of ethno-pharmacology v. 34 (2/3): p. 261-267; 1991 Sep. Includes references.

Language: English

Descriptors: Africa; Strychnos henningsii; Traditional medicines; Ethnobotany; Antiinflammatory agents; Analgesics; Spasms; Pharmacology; Bark; Rats

Abstract: Strychnos henningsii Gilg is used in African traditional medicine for the treatment of various ailments, including rheumatism, gastrointestinal complaints and snake bites. Different preliminary pharmacological experiments are described. The results show that some of the reported folk medicinal applications of S. henningsii can be at least partially explained by the presence of retuline-like alkaloids, whose use could lead to new antinociceptive (antiinflammatory and analgesic) and antispasmodic drugs.

224 NAL Call. No.: SF915.J63
Further studies on the antinociceptive activity and respiratory effects of buprenorphine in sheep.
Waterman, A.E.; Livingston, A.; Amin, A.
Oxford : Blackwell Scientific Publications; 1991 Sep.
Journal of veterinary pharmacology and therapeutics v. 14 (3): p. 230-234; 1991 Sep. Includes references.

Language: English

Descriptors: Sheep; Analgesics; Dosage; Drug effects; Stimuli; Respiratory gases

225 NAL Call. No.: 475 J824
Gas chromatographic-mass spectrometric investigation of Dextromoramide (Palfium) metabolism in the horse.
Reilly, P.J.; Suann, C.J.; Duffield, A.M.
Amsterdam : Elsevier Science Publishers; 1990 Jan05.
Journal of chromatography v. 498 (1): p. 35-40; 1990 Jan05. Includes references.

Language: English

Descriptors: Horses; Analgesics; Metabolism; Urine; Detection; Gas chromatography; Mass spectrometry

226 NAL Call. No.: SF951.V47
General anesthesia for horses with specific problems.
Hodgson, D.S.; Dunlop, C.I.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 625-650; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Surgical operations; Laparotomy; Castration; Neoplasms; Ovariectomy; Ovaries; Caesarean section; Gastrointestinal diseases; Orthopedics; Eye diseases; Fractures; Larynx; Radiography

227 NAL Call. No.: SF951.V47
General clinical considerations for anesthesia of the horse.
Thurmon, J.C.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 485-494; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Respiratory system

228 NAL Call. No.: 60.18 J82
Grazing effects and range trend assessment on California bighorn sheep range. Wikeem, B.M.; Pitt, M.D.
Denver, Colo. : Society for Range Management; 1991 Sep.
Journal of range management v. 44 (5): p. 466-470; 1991 Sep. Includes references.

Language: English

Descriptors: British Columbia; Ovis canadensis; Grazing effects; Grasslands; Botanical composition; Plant ecology; Plant communities; Community ecology; Feeding preferences; Vigor; Feces composition; Plant succession; Forage; Grasses; Shrubs

Abstract: This study investigated the effect of grazing by California bighorn sheep (Ovis canadensis californiana) on plant community structure. Over 28 months from 1977 to 1979, bighorn diet consisted of 79 species, including 14 grasses, 47 forbs and bryophytes, plus 18 trees and shrubs. Grasses, forbs, and shrubs comprised 66.6, 18.9, and 14.5% of the diet, respectively. Three years of bighorn sheep grazing reduced ($P < 0.05$) leaf and culm lengths of bluebunch wheatgrass (Agropyron spicatum (Pursh) Scribn. & Smith). Grazing generally reduced leaf length, basal diameter, culm (stem) length, and culm (stem) numbers of prairie Junegrass (Koeleria cristata Pers.), Sandberg's bluegrass (Poa sandbergii Vasey), needle-and-thread (Stipa comata Trin. & Rupr.), Thompson's paintbrush (Castilleja thompsonii Pennell), silky lupine (Lupinus sericeus Pursh), and snow buckwheat (Eriogonum niveum Dougl.). Vigor of arrowleaf balsamroot (Balsamorhiza sagittata (Pursh) Nutt.) was unaffected by grazing, despite its dietary importance. Total plant frequency remained unchanged between 1976 and 1983 in areas grazed by bighorn sheep, and in grazing exclosures. Total grass frequency declined from 46.5 to 30.8% within the exclosures, but increased from 44.7 to 48.8% in response to bighorn sheep grazing. Forb frequency remained

unchanged after 7 years of bighorn sheep grazing while frequency of yarrow (Achillea millefolium L.) increased more inside exclosures than on the grazed area. Botanical composition of shrubs increased on grazed and ungrazed areas from 1976 to 1983, but frequency was unaffected by bighorn sheep grazing. Snow buckwheat and Wyeth buckwheat (Eriogonum heracleoides Nutt.) declined in response to bighorn sheep grazing. Successional trends caused by California bighorn sheep grazing differed from trends expected from cattle grazing.

229 NAL Call. No.: SF951.J65
Guaifenesin-ketamine-xylazine anesthesia for castration in ponies: Acomparative study with two different doses of ketamine.
Lin, H.C.; Thurmon, J.C.; Benson, G.J.; Tranquilli, W.J.; Olson, W.A. Lake Elsinore, Calif. : William E. Jones, DVM; 1993 Jan.
Journal of equine veterinary science v. 13 (1): p. 29-32; 1993 Jan. Includes references.

Language: English

Descriptors: Illinois; Horses; Ketamine; Castration; Surgery; Anesthesia

230 NAL Call. No.: 41.8 C81
Halothane-sparing effect of benzodiazepines in ponies.
Matthews, N.S.; Dollar, N.S.; Shawley, R.V.
Ithaca, N.Y. : Cornell Veterinarian, Inc; 1990 Jul.
Cornell veterinarian v. 80: p. 259-265; 1990 Jul. Includes references.

Language: English

Descriptors: Horses; Halothane; Diazepam; Benzodiazepines; Anesthesia

231 NAL Call. No.: SF951.J65
Hematomyelia in a colt: a post anesthesia/surgery complication. Wan, P.Y. \u Chino Valley Equine Hospital, Chino, CA; Latimer, F.G.; Silva-Krott, I.; Goble, D.O.
Lake Elsinore, Calif. : William E. Jones, DVM; 1994 Sep.
Journal of equine veterinary science v. 14 (9): p. 495-497; 1994 Sep. Includes references.

Language: English

Descriptors: Colts; Postoperative complications; Neuromuscular diseases; Anesthesia; Surgery; Case reports

232 NAL Call. No.: 41.8 AM3A
Hemodynamic and respiratory responses to variable arterial partial pressure of oxygen in halothane-anesthetized horses during spontaneous and controlled ventilation.
Steffey, E.P.; Willits, N.; Woliner, M.
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Oct. American journal of veterinary research v. 53 (10): p. 1850-1858; 1992 Oct. Includes references.

Language: English

Descriptors: Horses; Halothane; Anesthesia; Lung ventilation; Oxygen; Internal pressure; Hemodynamics

Abstract: Cardiovascular and respiratory responses to

variable PaO2 were measured in 6 horses anesthetized only with halothane during spontaneous (SV) and controlled (CV) ventilation. The minimal alveolar concentration (MAC) for halothane in oxygen was determined in each spontaneously breathing horse prior to establishing PaO2 study conditions--mean +/- SEM, 0.95 +/- 0.03 vol%. The PaO2 conditions of > 250, 120, 80, and 50 mm of Hg were studied in each horse anesthetized at 1.2 MAC of halothane and positioned in left lateral recumbency. In response to a decrease in PaO2, total peripheral resistance and systolic and distolic arterial blood pressure decreased (P < 0.05) during SV. Cardiac output tended to increase because heart rate increased (P < 0.05) during these same conditions. During CV, cardiovascular function was usually less than it was at comparable PaO2 during SV (P < 0.05). Heart rate, cardiac output, and left ventricular work increased (P < 0.05) in response to a decrease in PaO2, whereas total peripheral resistance decreased (P < 0.05). During SV, cardiac output and stroke volume increased and arterial blood pressure and total peripheral resistance decreased with duration of anesthesia at PaO2 > 250 mm of Hg. During SV, minute expired volume increased (P < 0.05) because respiratory frequency tended to increase as PaO2 decreased. Decrease in PaCO2 (P < 0.05) also accompanied these respiratory changes. Although oxygen utilization was nearly constant over all treatment periods, oxygen delivery decreased (P < 0.05) with decrease in PaO2, and was less (P < 0.05) during CV, compared with SV, for comparable PaO2 values. Muscle and hepatic-derived serum biochemical values were substantially increased and evidence of depressed renal function was observed in these horses immediately after anesthesia recovery. These serum biochemical changes exceeded values in horses previously studied during prolonged halothane anesthesia in the absence of low PaO2.

233 NAL Call. No.: 41.8 AM3A
Hemodynamic effects of carbon dioxide during intermittent positive-pressure ventilation in horses.
Wagner, A.E.; Bednarski, R.M.; Muir, W.W. III
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Dec. American journal of veterinary research v. 51 (12): p. 1922-1929; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Carbon dioxide; Artificial respiration; Hemodynamics; Catecholamines; Hypercapnia; Propranolol; Cardiovascular system

Abstract: The hemodynamic effects of high arterial carbon dioxide pressure (PaCO2) during anesthesia in horses were studied. Eight horses were anesthetized with xylazine, guaifenesin, and thiamylal, and were maintained with halothane in oxygen (end-tidal halothane concentration = 1.15%). Baseline data were collected while the horses were breathing spontaneously; then the horses were subjected to intermittent positive-pressure ventilation, and data were collected during normocapnia (PaCO2, 35 to 45 mm of Hg), moderate hypercapnia (PaCO2, 60 to 70 mm of Hg), and severe hypercapnia (PaCO2, 75 to 85 mm of Hg). Hypercapnia was induced by adding carbon dioxide to the inspired gas mixture. Moderate and severe hypercapnia were associated with significant (P < 0.05) increases in aortic blood pressure, left ventricular systolic pressure, cardiac output, stroke volume, maximal rate of increase and decrease in left ventricular pressure (positive and negative dP/dtmax, respectively), and median arterial blood flow, and decreased time constant for ventricular relaxation. These hemodynamic changes were accompanied by increased plasma epinephrine and norepinephrine concentrations. Administration of the beta-blocking drug,

propranolol hydrochloride, markedly depressed the response to hypercapnia. This study confirmed that in horses, hypercapnia is associated with augmentation of cardiovascular function.

234 NAL Call. No.: SF951.J65
Hemodynamic parameters and tissue oxygenation during halothane anesthesia in normal horses and those experiencing post anesthetic lameness. Branson, K.R.; Benson, G.J.; Thurmon, J.C.; Olson, W.A.; Tranquilli, W.J.; Dorner, J.L.
Lake Elsinore, Calif. : William E. Jones, DVM; 1992 May.
Journal of equine veterinary science v. 12 (3): p. 153-159; 1992 May. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Halothane; Lameness; Hemodynamics; Tissues; Oxygen

235 NAL Call. No.: 410.9 P94
Hemodynamic parameters of anesthetized pigs: a comparative study of farm piglets and Gottingen and Yucatan miniature swine.
Benharkate, M.; Zanini, V.; Blanc, R.; Boucheix, O.; Coyez, F.; Genevois, J.P.; Pairet, M.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1993 Feb. Laboratory animal science v. 43 (1): p. 68-72; 1993 Feb. Includes references.

Language: English

Descriptors: Piglets; Miniature pigs; Anesthesia; Hemodynamics

Abstract: We studied the evolution in time of the main hemodynamic parameters in farm piglets and Gottingen and Yucatan miniature swine anesthetized with droperidol, flunitrazepam, and alpha-chloralose. Measurements included arterial pressure, heart rate, intraventricular pressure, and maximum rate of increase during contraction (dp/dt max). For each parameter and each strain of swine, we determined the mean stability period defined as the longest period of time during which the observed values ranged between their mean value +/-15% and the mean absolute values during the stability period. In our experimental conditions, the parameters remained constant for 2 to 3.5 hours. Only minor interstrain variations were noticed.

236 NAL Call. No.: 41.8 AM3A
Hemodynamic responses of the equine digit to intravenous and digital arterial infusion of dopamine.
Hunt, R.J.; Moore, J.N.; ALlen, D.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Apr. American journal of veterinary research v. 51 (4): p. 567-570. ill; 1990 Apr. Includes references.

Language: English

Descriptors: Horses; Dopamine; Phalanges; Pentobarbital; Blood vessels; Detoxicants

Abstract: In 6 adult horses anesthetized with pentobarbital, the hemodynamic responses of the equine digit to infusion of dopamine were evaluated by use of an isolated extra corporeal pump perfused digital preparation. Digital blood flow was maintained at a constant rate that was independent of systemic hemodynamic changes. Three sequential experiments were performed on each horse. In the first experiment (n = 6), dopamine was infused IV at rates of 1.0, 2.5, and 5.0

microgram/kg/min. For the second experiment (n = 5), dopamine (400 microgram/ml) was infused into the digital artery at the rates of 0.07, 0.7, and 1.2 ml/min. The third experiment (n = 5) consisted of a 5-minute intra-arterial infusion of phentoalamine followed by the intra-arterial infusion of dopamine while continuing the infusion of phentolamine. Digital venous, arterial, and capillary pressures, total digital vascular resistance, and precapillary to postcapillary resistance ratios were determined in each experiment. Systemic infusion of dopamine did not induce changes in the hemodynamics of the digital vasculature. Digital arterial infusion of dopamine alone resulted in a dose-dependent increase in arterial pressure, total digital vascular resistance, and an increase in the precapillary to postcapillary resistance ratio. Phentolamine attenuated the vasoconstrictive response elicited by intra-arterial infusion of dopamine.

237 NAL Call. No.: SF951.J65
The hemodynamic, tissue oxygenation, and selected biochemical effects of isoflurane and halothane anesthesia in horses.
Branson, K.R.; Benson, G.J.; Thurmon, J.C.; Olson, W.A.; Tranquilli, W.J.; Dorner, J.L.
Lake Elsinore, Calif. : William E. Jones, DVM; 1993 Jul.
Journal of equine veterinary science v. 13 (7): p. 396-409; 1993 Jul. Includes references.

Language: English

Descriptors: Horses; Anesthesia

238 NAL Call. No.: 41.8 C81
Hemorrhagic myelomalacia following general anesthesia in a horse. Lerche, E.; Laverty, S.; Blais, D.; Sauvageau, R.; Cuvelliez, S. Ithaca, N.Y. : Cornell Veterinarian, Inc; 1993 Oct.
The Cornell veterinarian v. 83 (4): p. 267-273; 1993 Oct. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Complications

239 NAL Call. No.: SF955.E6
High frequency jet ventilation in horses: an experimental study. Dunlop, C.I.; Hodgson, D.S.; Watson, J.W.; Gillespie, J.R.; Steffey, E.P.; Jackson, A.C.
Newmarket : R & W Publications; 1989 Sep.
Equine veterinary journal v. 21 (5): p. 342-346. ill; 1989 Sep. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Ventilators; Lung ventilation; Artificial respiration; Oxygen; Carbon dioxide

240 NAL Call. No.: 41.8 V643
Histopathology of intact and docked pigtails.
Simonsen, H.B.; Klinken, L.; Bindseil, E.
London : Bailliere Tindall; 1991 Sep.
British veterinary journal v. 147 (5): p. 407-412; 1991 Sep. Includes references.

Language: English

Descriptors: Piglets; Pigs; Tail; Docking; Peripheral nerves;

Histology; Histopathology; Tail biting

Abstract: A histological examination was performed on tails from three groups of pigs, comprising 10 amputated tail tips from day-old piglets, 10 tails from undocked fattening pigs and 20 tails from docked fattening pigs. The investigation demonstrated that peripheral nerves could be traced to the tip of the tails of day-old piglets as well as of fattening pigs. In the docked fattening pigs, the peripheral nerves were unevenly distributed and showed regressive changes. In some cases traumatic neuromas were found, indicating an increased sensitivity to pain in the amputation stump. It was, surprisingly, demonstrated that widespread inflammatory reactions could be found in the apparently healthy tails of both categories of fattening pigs, presumably due to pen-mates' chewing activities.

241 NAL Call. No.: 41.8 Am3A
Ibuprofen treatment of endotoxin-induced mastitis in cows.
DeGraves, F.J.; Anderson, K.L.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Jul. American journal of veterinary research v. 54 (7): p. 1128-1132; 1993 Jul. Includes references.

Language: English

Descriptors: Dairy cows; Analgesics; Bovine mastitis; Experimental infections; Escherichia coli; Endotoxins; Disease course; Blood; Milk; Drug effects; Non-steroidal antiinflammatory agents

Abstract: Ibuprofen treatment was compared with saline solution treatment in an endotoxin-induced experimental model of bovine mastitis. Acute mastitis was induced in healthy lactating Holstein cows (n = 12) by intrammamary inoculation of 1 mg of Escbericbia coli 026:B6 lipopolysaccharide in a single quarter per cow. Cows were assigned at random to ibuprofen (25 mg/kg of body weight, IV, n = 6) or 0.9% sodium chloride solution control (1.25 ml/kg, IV, n = 6) treatment groups. Ibuprofen or saline solution was administered once, 2 hours after endotoxin administration. The clinical course of endotoxin-induced mastitis and hematologic, clinical biochemical, and plasma mineral changes were monitored and compared between ibuprofen-treated and control cows. Clinical monitoring and blood sample collection were performed at 0, 2, 4, 6, 8, 12, 24, 48, 96, and 192 hours after endotoxin challenge. Rectal temperature and heart and respiratory rates were significantly ($P < 0.05$) increased in saline treated cows, compared with cows treated with ibuprofen, Blood eosinophil count and serum phosphorus, sodium, and total carbon dioxide concentrations were significantly ($P < 0.05$) decreased in saline-treated cows, compared with cows treated with ibuprofen. Ibuprofen treatment did not significantly change ruminations per minute, electrical conductivity of milk, quarter size, or quarter inflammation. The remaining hematologic, serum biochemical, plasma mineral, and coagulation values also were not changed significantly in response to ibuprofen treatment. Untoward effects attributed to ibuprofen administration were not observed. These results indicate that ibuprofen may provide empiric relief of clinical signs of coliform-induced mastitis.

242 NAL Call. No.: 41.8 Am3
Immunocytochemical and dye distribution studies of nerves potentially desensitized by injections into the distal interphalangeal joint or the navicular bursa of horses.
Bowker, R.M.; Rockershouser, S.J.; Vex, K.B.; Sonea, I.M.; Caron, J.P.; Kotyk, R.

Schaumburg, Ill. : The Association; 1993 Dec15.
Journal of the American Veterinary Medical Association v. 203 (12): p. 1708-1714; 1993 Dec15. Includes references.

Language: English

Descriptors: Horses; Peripheral nerves; Joints (animal); Serous bursa; Phalanges; Bones; Ligaments; Injectable anesthetics; Dyes; Latex

243 NAL Call. No.: 47.8 AM33P
An improved procedure for intramagnal insemination of the chicken. Engel, H.N.; Froman, D.P.; Kirby, J.D.
Champaign, Ill. : Poultry Science Association; 1991 Sep.
Poultry science v. 70 (9): p. 1965-1969; 1991 Sep. Includes references.

Language: English

Descriptors: Hens; Artificial insemination; Laparotomy; Xylazine; Anesthetics; Ketamine; Laying performance

Abstract: Intramagnal insemination is a useful technique in the analysis of spermatozoal function. Precise deposition of spermatozoa requires the use of laparotomy. However, hen-day egg production can be adversely affected by such a procedure. The present work demonstrates that postoperative hen-day egg production is affected by choice of anesthetic. Hens anesthetized with a mixture of ketamine and xylazine prior to laparotomy laid 14% fewer eggs ($P < .05$) when compared with intact controls. In contrast, the postoperative hen-day egg production of hens anesthetized with xylazine alone was comparable with that of intact controls ($P > .05$). Furthermore, the use of xylazine alone increased the case of handling sedated hens and decreased recovery time. Therefore, xylazine is recommended for anesthetizing hen prior to laparotomy.

244 NAL Call. No.: QD415.A1X4
The in vitro blood, fat and muscle concentrations of lignocaine and bupivacaine in the hindquarters of sheep. Upton, R.N.; Nancarrow, C.; McLean, C.F.; Mather, L.E.; Runciman, W.B. London : Taylor & Francis; 1991 Jan.
Xenobiotica v. 21 (1): p. 13-22; 1991 Jan. Includes references.

Language: English

Descriptors: Sheep; Lidocaine; Local anesthetics; Uptake; Blood; Skeletal muscle; Fat; Rump

Abstract: 1. A method was developed for sampling muscle and fat from the hindquarters of sheep undergoing spinal anaesthesia. The method was used to measure the concentrations of lignocaine and bupivacaine in the blood, muscle and fat of the hindquarters of sheep during and after 180 min constant-rate infusions of the drugs. 2. For both drugs the muscle drug concentrations were a relatively constant ratio of the simultaneous arterial blood drug concentrations during and after the infusion. 3. There was uptake of both lignocaine and bupivacaine into subcutaneous fat during the infusions. At the end of the infusion the ratio of the fat: arterial blood drug concentrations were 1.54 (SD =0.57, n = 4) and 3.1 (SD = 1.4, n = 4) for lignocaine and bupivacaine, respectively. 4. The drug concentrations in fat declined relatively slowly after the infusion. The ratio of the fat: arterial blood drug concentrations 180 min after the end of the infusion was 21.5 (SD 4.0, n = 3) and for lignocaine, and 120 min after the end

of the infusion was 9.54 (SD 5.2, n = 3) for bupivacaine. 5. It was concluded that the concentrations of lignocaine and bupivacaine in muscle were essentially in equilibrium with the arterial concentrations during and after the infusion. However, the concentrations of lignocaine and bupivacaine in fat were not in equilibrium with the arterial concentrations in the post-infusion period.

245 NAL Call. No.: SF955.E6
In vitro responses of equine digital vessels to dopamine and fenoldopam. Baxter, G.M.; Moore, J.N.; Tackett, R.L.
Newmarket : R & W Publications; 1991 Jan.
Equine veterinary journal v. 23 (1): p. 48-52; 1991 Jan.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Dopamine; Dosage effects; In vitro; Cardiovascular system

246 NAL Call. No.: QD415.A1X4
The in vitro uptake and metabolism of lignocaine, procainamide and pethidine by tissues of the hindquarters of sheep.
Upton, R.N.; Mather, L.E.; Runciman, W.B.
London : Taylor & Francis; 1991 Jan.
Xenobiotica v. 21 (1): p. 1-12; 1991 Jan. Includes references.

Language: English

Descriptors: Sheep; Lidocaine; Pethidine; Local anesthetics; Uptake; In vitro; Drug metabolism; Animal tissues; Liver; Skeletal muscle; Body fat; Skin; Blood; Rump; Limbs

Abstract: 1. In vitro studies using tissue slices or tissue homogenates of liver, skeletal muscle, fat skin and blood were conducted to determine whether the uptake of procainamide, lignocaine and pethidine into the hindquarters of sheep was due to distribution or metabolism. Both homogenates and slice preparations of liver showed significant metabolism or uptake, confirming the viability of the preparations. 2. None of the drugs was metabolized in blood and there was minimal uptake of the drugs into the skin. 3. There was metabolism of pethidine in skeletal muscle and substantial uptake of pethidine into fat, indicating that the rapid rate of uptake and prolonged elution of pethidine in the hindquarters was due to both distribution and metabolism. 4. No metabolism of lignocaine in muscle was found, but there was substantial uptake into fat, indicating that the rapid rate of uptake and prolonged elution of lignocaine in the hindquarters was due to its distribution into fat. 5. There was negligible uptake of procainamide into either muscle or fat, presumably due to its relatively low lipophilicity.

247 NAL Call. No.: 41.8 AM3A
In vivo muscle 31P nuclear magnetic resonance spectroscopy during treatment of halothane-sensitive and halothane-nonsensitive pigs.
Geers, R.; Decanniere, C.; Ville, H.; Hecke, P. van; Goedseels, V.; Vanstapel, F.; Bosschaerts, L.; Ley, J. de; Zhang, W.; Janssens, S.
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Apr. American journal of veterinary research v. 53 (4): p. 613-616; 1992 Apr. Includes references.

Language: English

Descriptors: Pigs; Halothane; Atp; Phosphocreatine; Muscles; Nuclear magnetic resonance spectroscopy; Prediction

Abstract: In vivo muscle 31P nuclear magnetic resonance spectroscopy was performed on 10 female pigs originating from a homozygous halothane-sensitive line and on 10 female pigs from a homozygous halothane-nonsensitive fine. The mean concentration of phosphocreatine in the biceps femoris muscle of the anesthetized pigs decreased to 86% of the initial value after 11 minutes of halothane exposure (3%, oxygen flow 3 L/min). After the next 5.6 minutes, phosphocreatine concentration reached a minimal value of 52%, followed by a mean recovery to 76% of the initial value during the ensuing 11 minutes. Response was not observed in anesthetized homozygous halothane-nonsensitive pigs. Thus, a decrease to 86% of the initial value of phosphocreatine was 100% predictive for homozygous halothane-sensitive pigs with body weight ranging from 10 to 18 kg.

248 NAL Call. No.: SF955.E6
Indirect doppler ultrasonic measurement of arterial blood pressure results in a large measurement error in dorsally recumbent anaesthetised horses. Bailey, J.E.; Dunlop, C.I.; Chapman, P.L.; Demme, W.C.; Allen, S.L.; Heath, R.B.; Crump, K.T.; Golden, C.S.; Wagner, A.E.
Newmarket : R & W Publications; 1994 Jan.
Equine veterinary journal v. 26 (1): p. 70-73; 1994 Jan.
Includes references.

Language: English

Descriptors: Horses; Blood pressure; Ultrasonics; Anesthesia

249 NAL Call. No.: 41.8 AM3A
Induction of equine postanesthetic myositis after halothane-induced hypotension.
Lindsay, W.A.; Robinson, G.M.; Brunson, D.B.; Majors, L.J.
Schaumburg, Ill. : American Veterinary Medical Association; 1989 Mar. American journal of veterinary research v. 50 (3): p. 404-410; 1989 Mar. Includes references.

Language: English

Descriptors: Horses; Halothane; Anesthesia; Hypotension; Muscles; Inflammation; Adverse effects; Nervous system diseases

Abstract: Wick catheters were used to measure intracompartmental pressures of the extensor carpi radialis muscles and long heads of the triceps brachii muscles of 7 horses maintained under halothane anesthesia during controlled ventilation. Horses were positioned in left lateral recumbency on a water bed for 4 hours. Using a crossover design, 6 of the 7 horses were subjected to normotensive and hypotensive anesthesia on separate occasions. Hypotension was achieved by increasing the inspired halothane concentration. Hematologic and biochemical measurements were determined at designated intervals before, during and for 7 days after each anesthetic episode. Under hypotensive conditions, 2 horses developed severe, generalized myositis and were euthanatized. Three of the 5 other horses developed swelling of the downside masseter muscle, 4 demonstrated mild extensor deficits of the downside forelimb, and 1 had a severe extensor deficit of the uppermost hind limb. As a group, the hypotensive horses had markedly increased activities of serum enzymes (creatine kinase, aspartate transaminase, and blood lactate) and abnormalities in calcium-phosphorus homeostasis. Lameness or enzyme alterations were not observed in normotensive horses. Altough

the intracompartmental pressure values were markedly increased in the muscle bellies of the compressed limbs of all horses, there was a statistically significant difference in intracompartmental pressures between the downside or compressed muscle compartments of the extensor carpi radialis of hypotensive and normotensive horses. High concentrations of halothane may predispose anesthetized horses to postanesthetic myositis, even when protective padding is used. Intracompartmental muscle pressure, as measured by the wick catheter, may not be a reliable predictor of equine postanesthetic lameness.

250 NAL Call. No.: SF915.J63
The influence of chronic pain on the analgesic effects of the alpha 2-adrenoceptor agonist, xylazine, in sheep.
Ley, S.; Waterman, A.; Livingston, A.
Oxford : Blackwell Scientific Publications; 1991 Jun.
Journal of veterinary pharmacology and therapeutics v. 14 (2): p. 141-144; 1991 Jun. Includes references.

Language: English

Descriptors: Sheep; Xylazine; Pain; Drug effects; Local anesthesia; Foot rot; Duration

251 NAL Call. No.: SF911.V43
The influence of detomidine and epinephrine on heart rate, arterial blood pressure, and cardiac arrhythmia in horses.
Raekallio, M.; Vainio, O.; Karjalainen, J.
Hagerstown, Md. : J.B. Lippincott Company; 1991 Nov.
Veterinary surgery v. 20 (6): p. 468-473; 1991 Nov. Includes references.

Language: English

Descriptors: Horses; Anesthetics; Epinephrine; Heart rate; Blood pressure; Arrhythmia; Cardiovascular system

252 NAL Call. No.: 41.8 AM3A
Influence of preinduction methoxamine, lactated Ringer solution, or hypertonic saline solution infusion or postinduction dobutamine infusion on anesthetic-induced hypotension in horses.
Dyson, D.H.; Pascoe, P.J.
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Jan. American journal of veterinary research v. 51 (1): p. 17-21; 1990 Jan. Includes references.

Language: English

Descriptors: Horses; Anesthetics; Guaifenesin; Halothane; Hypotension; Methoxamine; Solutions; Saline water; Cardiovascular agents

Abstract: A controlled study of the cardiovascular responses in horses anesthetized with acepromazine (0.05 mg/kg of body weight, IV), guaifenesin (100 mg/kg, IV), thiamylal (5.0 mg/kg, IV), and halothane in O2 (1.2 to 1.4% end-expired concentration) was performed to determine whether hypotension could be prevented by use of various treatments. Six horses were given 5 treatments in a randomized sequence: no treatment (control), methoxamine (0.04 mg/kg IV), lactated Ringer solution (20.0 ml/kg, IV), 7.5% hypertonic saline solution (4.0 ml/kg, IV), or constant infusion of dobutamine (5.0 mg/kg/min, IV) during anesthesia. Heart rate, ECG, blood pressure, central venous pressure, cardiac output, blood gas analysis, PCV, and plasma total protein concentration were

measured during the study. Compared with the control value, an increase in blood pressure during halothane administration was observed after administration of lactated Ringer solution, hypertonic saline solution, or dobutamine ($P < 0.05$). The improved blood pressure response to hypertonic saline solution and dobutamine was related to an increase in cardiac output, which was statistically significant ($P < 0.05$) Other statistically significant differences in cardiopulmonary responses among treatments were not observed during anesthesia. The PCV was increased in response to dobutamine infusion, and plasma total protein concentration was reduced in response to administration of hypertonic saline or lactated Ringer solution.

253 NAL Call. No.: 41.8 AM3A
Influence of tolazoline on caudal epidural administration of xylazine in cattle.
Skarda, R.T.; St Jean, G.; Muir, W.W. III
Schaumburg, Ill. : American Veterinary Medical Association; 1990 Apr. American journal of veterinary research v. 51 (4): p. 556-560; 1990 Apr. Includes references.

Language: English

Descriptors: Cows; Xylazine; Detoxicants; Drug antagonism; Respiratory system; Central nervous system; Cardiovascular system; Stomach motility

Abstract: Eight adult female cattle (6 Holstein, 1 Jersey, 1 Brown Swiss) were used to determine the antagonistic effects of tolazoline, an alpha 2-adrenoceptor antagonist, on xylazine-induced (via caudal epidural administration) depression of CNS, respiratory, and cardiovascular activity and rumen motility. A 2% solution of xylazine HCl was injected into the epidural space at the first coccygeal interspace, using a dosage of 0.05 mg/kg of body weight, diluted to a 5-ml volume with sterile water, and administered at a rate of approximately 1 ml/30 s. Eight minutes after xylazine injection, either tolazoline (0.3 mg/kg) or saline solution (4 ml) was administered IV. All 8 cattle were treated, using both regimens in a random sequence; at least 1 week elapsed between treatments. Epidurally administered xylazine induced caudal analgesia (S3 to coccyx), as evaluated by no response to superficial and deep muscular pinprick, and induced sedation, cardiopulmonary depression, and inhibition of rumen motility, but all cattle remained standing. Tolazoline effectively reversed xylazine-induced rumen hypomotility, and partially antagonized xylazine-induced cardiopulmonary depression without affecting sedation and desirable local (S3 to coccyx) analgesic effects.

254 NAL Call. No.: SF915.J63
Influence of yohimbine and tolazoline on the cardiovascular , respiratory, and sedative effects of xylazine in the horse.
Kollias-Baker, C.A.; Court, M.H.; Williams, L.L.
Oxford, Blackwell Scientific Publications; 1993 Sep. Journal of veterinary pharmacology and therapeutics v. 16 (3): p. 350-358; 1993 Sep. Includes references.

Language: English

Descriptors: Horses; Xylazine

255 NAL Call. No.: SF601.A46
Injectable anesthesia in horses.
Thurmon, J.C.
Manhattan, Kan. : The Association; 1989.

Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 529-541; 1989. Meeting held December 4-7, 1988, San Diego, CA. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Muscle relaxants; Analgesics; Anesthetics

256 NAL Call. No.: SF601.C66
Injectable regimens for standing restraint and anesthesia.
Tranquilli, W.J.
Lawrenceville, N.J. : Veterinary Learning Systems Company; 1989 Oct. The Compendium on continuing education for the practicing veterinarian v. 11 (10): p. 1283-1285; 1989 Oct. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Anesthetics; Injections; Restraint

257 NAL Call. No.: 41.8 AM3A
Inotropic mechanisms of dopexamine hydrochloride in horses.
Muir, W.W. III
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Aug. American journal of veterinary research v. 53 (8): p. 1343-1346; 1992 Aug. Includes references.

Language: English

Descriptors: Horses; Dopamine; Analogs; Dosage; Heart rate; Cardiac output; Blood pressure; Muscle contraction

Abstract: Mechanisms responsible for the positive inotropic effects of dopexamine were investigated in 8 halothane-anesthetized horses. The hemodynamic effects of increasing infusions of dopexamine (5, 10, 15 microgram/kg of body weight/min) were determined before and after sequential administration of specific antagonists. Using glycopyrrolate and chlorisondamine, and atenolol and ICI 118,551, muscarinic and nicotinic ganglionic, and beta, and beta-adrenergic receptor blockade, respectively, was induced. Dopexamine infusions induced increase in heart rate, cardiac output, systolic and mean arterial blood pressure, and maximal rate of left ventricular pressure development (+dP/dt(max)). Right atrial pressure and systemic vascular resistance decreased. Parasympathetic and ganglionic blockade attenuated cardiac output, systolic and mean aortic blood pressures, and +dP/dt(max) responses to dopexamine infusion. Dopexamine-induced increase in heart rate was potentiated by parasympathetic and ganglionic blockade. beta-Adrenergic receptor blockade decreased heart rate, cardiac output, arterial blood pressure, and +dP/dt(max) from baseline values and markedly reduced the response to dopexamine infusion. beta-Adrenergic receptor blockade induced further decrease in hemodynamic variables from baseline values and completely abolished the cardiostimulatory effects of dopexamine on +dP/dt(max) These data indicate that baroreflex activity, beta- and beta 2-adrenergic receptor stimulation may be an important cause of dopexamine's positive inotropic effects in horses.

258 NAL Call. No.: SF955.E6
Interaction of gentamycin and atracurium in anaesthetised horses. Hildebrand, S.V.; Hill, T. III

Newmarket : R & W Publications; 1994 May.
Equine veterinary journal v. 26 (3): p. 209-211; 1994 May.
Includes references.

Language: English

Descriptors: Horses; Gentamicin; Muscle relaxants; Interactions; Anesthesia; Drug effects

259 NAL Call. No.: SF911.V43
Intraosseous cannulation and drug administration for induction of anesthesia in chickens.
Valverde, A.; Bienzle, D.; Smith, D.A.; Dyson, D.H.; Valliant, A.E. Philadelphia, Pa. : W.B. Saunders Company; 1993 May.
Veterinary surgery v. 22 (3): p. 240-244; 1993 May. Includes references.

Language: English

Descriptors: Chickens; Anesthesia; Cannulation; Ketamine; Thiopental; Bones; Injection

260 NAL Call. No.: 41.8 C81
Intra-osseous pressure and pressure pulse gradients along the equine third metatarsal bone.
Stolk, P.W.T.; Firth, E.C.
Ithaca, N.Y. : Cornell Veterinarian, Inc; 1990 Oct.
Cornell veterinarian v. 80 (4): p. 317-328. ill; 1990 Oct.
Includes references.

Language: English

Descriptors: Horses; Metatarsus; Internal pressure; Gradients; Anesthesia; Age

261 NAL Call. No.: SF910.P34A55 1992
Intraspinal alpha 2-adrenergic analgesia in sheep.
Eisenach, J.C.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 277-280, 311-312; 1992. Includes references.

Language: English

Descriptors: Sheep; Analgesics; Agonists; Spinal cord; Drug effects; Hypotension; Toxicity; Testing; Anesthesia

262 NAL Call. No.: SF951.V47
Intravenous anesthesia.
Benson, G.J.; Thurmon, J.C.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 513-528; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Anesthetics; Injectable anesthetics; Neuroleptics; Atropine; Phenothiazines; Diazepam; Chloral hydrate; Xylazine; Barbiturates; Guaifenesin; Ketamine; Drug combinations

263 NAL Call. No.: 41.8 M69
Intravenous regional anesthesia of the bovine digit.
Weaver, A.D.
Lenexa, Kan. : Veterinary Medicine Publishing Co; 1991 Dec.

Veterinary medicine v. 86 (12): p. 1227-1229; 1991 Dec.
Includes references.

Language: English

Descriptors: Cattle; Digits; Local anesthesia; Injectable anesthetics

264 NAL Call. No.: 41.8 M69
Investigating xylazine's utility when used with Telazol in equine anesthesia. Short, C.E.; Tracy, C.H.; Sanders, E.
Lenexa, Kan. : Veterinary Medicine Publishing Company; 1989 Feb. Veterinary medicine v. 84 (2): p. 228-233; 1989 Feb.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Anesthetics; Neuroleptics; Xylazine; Drug combinations; Adverse effects; Heart rate; Respiration rate; Duration

265 NAL Call. No.: SF955.E6
An investigation of injection techniques for local analgesia of the equine distal tarsus and proximal metatarsus.
Dyson, S.J.; Romero, J.M.
Newmarket : R & W Publications; 1993 Jan.
Equine veterinary journal v. 25 (1): p. 30-35; 1993 Jan.
Includes references.

Language: English

Descriptors: Spain; Horses; Tarsus; Analgesics; Injection; Joints (animal); Metatarsus; Pain

266 NAL Call. No.: SF915.J63
Investigations into the effect of two sedatives on the stress response in cattle.
Brearley, J.C.; Dobson, H.; Jones, R.S.
Oxford : Blackwell Scientific Publications; 1990 Dec.
Journal of veterinary pharmacology and therapeutics v. 13 (4): p. 367-377; 1990 Dec. Includes references.

Language: English

Descriptors: Cows; Antagonists; Xylazine; Stress; Intramuscular injection; Transport of animals; Hydrocortisone; Blood plasma; Blood sugar; Gases

267 NAL Call. No.: 41.8 R3224
Isoflurane as an inhalational anesthetic agent in clinical practice. Dohoo, S.E.
Ottawa : Canadian Veterinary Medical Association; 1990 Dec.
The Canadian veterinary journal v. 31 (12): p. 847-850; 1990 Dec. Includes references.

Language: English

Descriptors: Inhaled anesthetics; Anesthesia; Veterinary medicine; Physicochemical properties; Pharmacokinetics; Safety; Horses; Birds

268 NAL Call. No.: SF955.E6
Jet anaesthesia in horses.
Young, S.S.
Newmarket : R & W Publications; 1989 Sep.

Equine veterinary journal v. 21 (5): p. 319-320; 1989 Sep.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Ventilators; Lung ventilation; Artificial respiration

269 NAL Call. No.: SF955.E6
Jugular thrombophlebitis resulting from an anaesthetic induction technique in the horse.
Dickson, L.R.; Badcoe, L.M.; Burbidge, H.; Kannegieter, N.J.
Newmarket : R & W Publications; 1990 May.
Equine veterinary journal v. 22 (3): p. 177-179; 1990 May.
Includes references.

Language: English

Descriptors: Horses; Thrombosis; Phlebitis; Anesthetics; Anesthesia; Pathology

270 NAL Call. No.: QL55.I5
Laboratory swine--principles of husbandry and research techniques. Dopson, D.C. \u Brompton Hospital, London
Sussex : The Institute; 1993 Dec.
Animal technology : journal of the Institute of Animal Technicians v. 44 (3): p. 175-200; 1993 Dec. Includes references.

Language: English

Descriptors: Pigs; Laboratory animals; Animal husbandry; Pig housing; Handling; Anesthesia; Miniature pigs; Strain differences; Veterinary medicine; Animal models

Abstract: Pigs are anatomically and physiologically similar to man in many ways. A fact which is supported by many and diverse scientific studies. However, they may be overlooked as research models for reasons of the presumed difficulties to be encountered in maintaining and handling animals of potentially great size. In fact, the type of pig available in the United Kingdom ranges from the Large White or Yorkshire pig which may weigh > 200 kg to the Yucatan Miniature Pig which is considerably smaller and lighter at < 70 kg. There are a number of possible advantages to using pigs over other species in the laboratory and some selected points will be considered in this paper. The requirements for routine care and techniques for minor regulated procedures are also described. Emphasis is also placed on current perspectives in cardio-respiratory research for which the pig is a particularly suitable animal model.

271 NAL Call. No.: SF955.E6
Lameness due to pain associated with the distal interphalangeal joint: 45 cases.
Dyson, S.J.
Newmarket : R & W Publications; 1991 Mar.
Equine veterinary journal v. 23 (2): p. 128-135; 1991 Mar.
Includes references.

Language: English

Descriptors: Horses; Lameness; Joints (animal); Pain; Joint diseases; Case reports; Radiography; Treatment; Anesthesia

272 NAL Call. No.: aHV4701.A952

Large animal anesthesia.
Shawley, R.V.
Beltsville, MD : National Agricultural Library, AWIC, 1990-; 1994. Animal Welfare Information Center newsletter v. 5 (1): p. 8-10; 1994. In the special issue: Farm animals in research and teaching. Includes references.

Language: English

Descriptors: Cattle; Sheep; Goats; Pigs; Anesthesia; Anesthetics; Young animals; Complications; Adverse effects; Preanesthetic medication; Drug combinations

273 NAL Call. No.: QL55.I5
The Large White female pig in research related to cancer treatment: general husbandry and anaesthesia.
Dickinson, F.; Hubbard, N.
Sussex : The Institute; 1990 Apr01.
Animal technology : journal of the Institute of Animal Technology v. 41 (1): p. 35-41. ill; 1990 Apr01. Includes references.

Language: English

Descriptors: Pigs; Animal experiments; Laboratory rearing; Anesthesia

Abstract: This paper is the accumulation of twenty years experience in the husbandry and anaesthesia of large swine and describes the methods we have adopted for the ease of carrying out the described procedures.

274 NAL Call. No.: 41.8 V641
Laryngotomy as a treatment for chronic laryngeal obstruction in cattle: a review of 130 cases.
Gasthuys, F.; Verschooten, F.; Parmentier, D.; Moor, A. de; Steenhaut, M. London : The Association; 1992 Mar14.
The Veterinary record : journal of the British Veterinary Association v. 130 (11): p. 220-223; 1992 Mar14. Includes references.

Language: English

Descriptors: Cattle; Larynx; Blockage; Surgical operations; Anesthesia; Survival; Postoperative complications; Double muscling

275 NAL Call. No.: SF955.E6
Laryngotracheal lesions following routine orotracheal intubation in the horse. Heath, R.B.; Steffey, E.P.; Thurmon, J.C.; Wertz, E.M.; Meagher, D.M.; Hyyppa, T.; Van Slyke, G.L.
Newmarket : R & W Publications; 1989 Nov.
Equine veterinary journal v. 21 (6): p. 434-437. ill; 1989 Nov. Includes references.

Language: English

Descriptors: Horses; Tubes; Trachea; Mouth; Inhaled anesthetics; Lesions; Complications; Iatrogenic diseases

276 NAL Call. No.: SF601.V535
Llama anesthetic programs.
Heath, R.B.
Philadelphia, Pa. : W.B. Saunders Company; 1989 Mar.
The Veterinary clinic of North America : food animal practice v. 5 (1): p. 71-80. ill; 1989 Mar. In the series analytic:

Llama medicine / edited by LaRue W. Johnson. Includes references.

Language: English

Descriptors: Llamas; Anesthesia; Management; Anesthetics

277 NAL Call. No.: SF951.V47
Local anesthetic techniques for diagnosis of lameness.
Schmotzer, W.B.; Timm, K.I.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 705-728; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Local anesthesia; Lameness; Diagnosis; Anesthetics; Nervous system; Joints (animal); Limbs

278 NAL Call. No.: SF911.V43
Local anesthetics and nuclear medical bone images of the equine fore limb. Gaughan, E.M.; Wallace, R.J.; Kallfelz, F.A.
Hagerstown, Md. : J.B. Lippincott Company; 1990 Mar.
Veterinary surgery v. 19 (2): p. 131-135. ill; 1990 Mar.
Includes references.

Language: English

Descriptors: Horses; Local anesthesia; Local anesthetics; Radiography; Technetium

279 NAL Call. No.: 41.8 R312
A long-term perfusion test to measure net absorption in the small intestine of weaned pigs.
Nabuurs, M.J.A.; Hoogendoorn, A.; Zijderveld, F.G. van; Klis, J.D. van der London : British Veterinary Association, 1960-; 1993 Jul. Research in veterinary science v. 55 (1): p. 108-114; 1993 Jul. Includes references.

Language: English

Descriptors: Pigs; Postweaning interval; Small intestine; Intestinal absorption; Perfusion; Tests; Bacteria; Anesthesia; Animal welfare

Abstract: To study the effects of bacteria on net absorption of fluid and electrolytes in the small intestine of newly weaned pig, a more comprehensive and ethical alternative to the ligated loop test was developed. Five paired segments, located at 10, 25, 50, 75 and 95 per cent sites along the small intestine, were cannulated at both ends and solutions perfused continuously through the segments for 10 hours. Net absorption was determined by both a volume method and a method using a non-absorbable marker. Net absorption of fluid, sodium, potassium and chloride was significantly less in segments infected with an enterotoxigenic Escherichia coli than in control segments. This method was superior to the ligated loop test because (i) it was performed entirely under anaesthesia, (ii) the small intestine did not distend during a test, (iii) net absorption was determined per cm 2 and along the whole length of the small intestine. Net absorption determined by the nonabsorbable marker was significantly less than that determined by the volume method.

280 NAL Call. No.: 41.8 R312
Lung compliance, lung volume and transfer factor for carbon

monoxide in anaesthetised sheep: normal values and reproducibility of measurements. Collie, D.D.S.; Watt, N.J.; Warren, P.M.; Begara, I.; Lujan, L. London : British Veterinary Association, 1960-; 1993 Sep. Research in veterinary science v. 55 (2): p. 137-143; 1993 Sep. Includes references.

Language: English

Descriptors: Ewes; Anesthesia; Respiration; Texel; Normal values; Regression analysis; Body weight

Abstract: Measurements of quasistatic compliance (Cqst), effective alveolar volume (VA,eff) and single-breath transfer factor for carbon monoxide (TL,CO,'sb') were completed in 16 normal, anaesthetized. adult Texel ewes. Regression equations were computed for these variables as a function of bodyweight and the optimal equations selected. The 95 per cent prediction intervals for the equations were calculated such that normal lung function in similar sheep could be accurately predicted. The long term reproducibility of these measurements was assessed in nine sheep, measured at monthly intervals over a period of rive months. Although measurements made in individual sheep were often highly variable, the variation between repeated measurements on the separate days for the group was insignificant.

281 NAL Call. No.: SF951.V47
Management of anesthesia in the foal.
Tranquilli, W.J.; Thurmon, J.C.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 651-663; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Foals; Anesthesia; Inhaled anesthetics; Injectable anesthetics; Newborn animals; Therapy; Monitoring

282 NAL Call. No.: 41.8 Am3A
Measurements of blood flow and xanthine oxidase activity during postischemic reperfusion of the large colon of ponies.
Wilkins, P.A.; Ducharme, N.G.; Lowe, J.E.; Schwark, W.S.; Meschter, C.; Erb, H.N.
Schaumburg, Ill. : American Veterinary Medical Association; 1994 Aug. American journal of veterinary research v. 55 (8): p. 1168-1177; 1994 Aug. Includes references.

Language: English

Descriptors: Horses; Colon; Blood flow; Xanthine oxidase; Enzyme activity; Intestinal obstruction; Ischemia; Xanthine dehydrogenase; Trauma

Abstract: To assess right colic artery blood flow and relevance of xanthine dehydrogenase/xanthine oxidase after experimentally induced strangulation obstruction and reperfusion of the colon, 5 ponies were subjected to 2.5 hours of complete ischemia of the left dorsal and ventral colons, allowed to recover from surgery, and monitored during a 48-hour reperfusion period. Five ponies were subjected to sham surgery and served as controls. All ponies had a Doppler ultrasound blood flow monitor implanted on the right colic artery near the pelvic flexure 10 to 14 days prior to the ischemic period. Colic artery blood flow was monitored prior to, during, and for 4 hours after surgery. Blood samples from the right colic artery and vein distal to the obstruction site were collected during surgery (prior to ischemia, after 1 and

2 hours of ischemia, and after 10 and 60 minutes of reperfusion) for determination of arterial and venous blood gas tensions and electrolytes. Prior to surgery, blood selenium and plasma vitamin E (alpha-tocopherol) concentrations and blood glutathione peroxidase (GPX) activity were determined to assess the status of endogenous antioxidants. Combined xanthine dehydrogenase (XDH) plus xanthine oxidase (XO) activity, and XO activity alone (nanomoles per minute per gram of tissue) were determined, using a dual-spectrophotometric technique. Xanthine dehydrogenase and oxidase activities were determined prior to ischemia, after 1 and 2 hours of ischemia, and at 1 and 48 hours after reperfusion. Median blood flow in the experimental and control groups (156 ml/min and 110 ml/min, respectively) was not statistically different before surgery, and was significantly ($P < 0.02$) lower in the experimental (4 ml/min) vs the control group (72.5 ml/min) during the ischemic period. Experimental ponies had significantly ($P < 0.03$) lower right colic artery blood flow during the 4 hours immediately after recovery from anesthesia. Significant difference was not observed in right colonic venous bicarbonate concentration between groups at any time. Median right colonic venous $P(CO2)$, pH, and standard base excess were different ($P < 0.001$) between groups during the ischemic period only. Median venous oxygen saturation and median venous $P(O2)$ were significantly ($P < 0.001$) lower in the experimental ponies at the end of 2 hours of ischemia, but were significantly ($P < 0.05$) increased during the reperfusion phase. Median venous potassium concentration was significantly ($P < 0.01$) higher in experimental ponies during the ischemic and reperfusion phases. Vitamin E and GPX values were within normal limits for all ponies. Median selenium concentration was < 15 microgram/dl; however, there were no significant differences between control and experimental ponies. Only 3 of 10 ponies had measurable XHH/XO activity at the beginning of the experiment. Enzyme activity was detected in 1 additional pony during the ischemic period. However, in all 4 ponies in wh

283 NAL Call. No.: SF955.E6
Metabolic and hormonal changes associated with arthroscopic surgery in the horse.
Robertson, S.A.; Steele, C.J.; Chen, C.L.
Newmarket : R & W Publications; 1990 Sep.
Equine veterinary journal v. 22 (5): p. 313-316; 1990 Sep.
Includes references.

Language: English

Descriptors: Horses; Surgical operations; Anesthesia; Xylazine; Hormones; Metabolism

284 NAL Call. No.: SF910.P34A55 1992
Metabolic and hormonal changes associated with general anesthesia and surgery in horses.
Robertson, S.A.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 326-330, 359; 1992. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Surgical operations; Metabolism; Hormones; Stress; Postoperative care

285 NAL Call. No.: 41.8 Am3
Methemoglobinemia induced by a benzocaine-based topically administered anesthetic in eight sheep.

Lagutchik, M.S.; Mundie, T.G.; Martin, D.G.
Schaumburg, Ill. : The Association; 1992 Nov01.
Journal of the American Veterinary Medical Association v. 201 (9): p. 1407-1410; 1992 Nov01. Includes references.

Language: English

Descriptors: Sheep; Benzocaine; Topical application; Nose; Adverse effects; Methemoglobinemia; Case reports

286 NAL Call. No.: 41.8 AM3
Methods of stimulating acupuncture points for treatment of chronic back pain in horses.
Klide, A.M.; Martin, B.B. Jr
Schaumburg, Ill. : The Association; 1989 Nov15.
Journal of the American Veterinary Medical Association v. 195 (10): p. 1375-1379. ill; 1989 Nov15. Includes references.

Language: English

Descriptors: Horses; Acupuncture; Pain; Back

287 NAL Call. No.: SF911.V43
Minimal anesthetic concentration and cardiopulmonary dose response of isoflurane in ducks.
Ludders, J.W.; Mitchell, G.S.; Rode, J.
Hagerstown, Md. : J.B. Lippincott Company; 1990 Jul.
Veterinary surgery v. 19 (4): p. 304-307; 1990 Jul. Includes references.

Language: English

Descriptors: Ducks; Anesthetics

288 NAL Call. No.: SF951.V47
Monitoring equine anesthesia.
Riebold, T.W.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 607-624; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Monitoring; Cardiovascular system; Respiratory system; Central nervous system; Equipment; Blood pressure; Pulse; Electrocardiography

289 NAL Call. No.: SF601.A46
Monitoring the equine emergency patient.
Hubbell, J.A.E.
Manhattan, Kan. : The Association; 1990.
Proceedings of the annual convention of the American Association of Equine Practitioners. p. 255-257; 1990.
Meeting held December 2-5, 1990, Lexington, KY. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Blood pressure

290 NAL Call. No.: SF915.J63
Morphine-isoflurane interaction in dogs, swine and Rhesus monkeys. Steffey, E.P.; Baggot, J.D.; Eisele, J.H.; Willits, N.; Woliner, M.J.; Jarvis, K.A.; Elliott, A.R.; Tagawa, M.
Oxford [England] : Blackwell Scientific Publications, 1978-;

1994 Jun. Journal of veterinary pharmacology and therapeutics v. 17 (3): p. 202-210; 1994 Jun. Includes references.

Language: English

Descriptors: Dogs; Pigs; Macaca mulatta; Morphine; Inhaled anesthetics; Species differences; Interactions; Pharmacokinetics; Anesthesia; Pharmacodynamics

291 NAL Call. No.: SF955.E6
Naloxone-induced abdominal distress in the horse.
Kamerling, S.G.; Hamra, J.G.; Bagwell, C.A.
Newmarket : R & W Publications; 1990 Jul.
Equine veterinary journal v. 22 (4): p. 241-243; 1990 Jul. Includes references.

Language: English

Descriptors: Horses; Horse diseases; Colic; Digestive disorders; Naloxone; Abdomen; Pain; Opioid peptides

292 NAL Call. No.: SF955.E6
Narcotics analgesics, their detection and pain measurement in the horse: a review.
Kamerling, S.; Wood, T.; DeQuick, D.; Weckman, T.J.; Tai, C.; Blake, J.W.; Tobin, T.
London : British Equine Veterinary Association; 1989 Jan.
Equine veterinary journal v. 21 (1): p. 4-12. ill; 1989 Jan. Literature review. Includes references.

Language: English

Descriptors: Horses; Analgesics; Detection; Pain; Measurement; Pharmacodynamics; Receptors; Screening

293 NAL Call. No.: SF951.V47
Narcotics and local anesthetics.
Kammerling, S.G.
Philadelphia, Pa. : W.B. Saunders; 1993 Dec.
The Veterinary clinics of North America. Equine practice v. 9 (3): p. 605-620; 1993 Dec. In the series analytic: Drug use in performance horses / edited by Kenneth W. Hinchcliff and Richard A. Sams. Includes references.

Language: English

Descriptors: Horses; Opioids; Local anesthetics

294 NAL Call. No.: SF910.P34A55 1992
Neurologic evaluation during isoflurane anesthesia.
Short, C.E.; Otto, K.; Abdella, M.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 330-338, 359-361; 1992. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Physiological functions; Central nervous system; Drug effects

295 NAL Call. No.: 41.8 AM3A
Neuromuscular and cardiovascular effects of atracurium in isoflurane-anesthetized chickens.
Nicholson, A.; Ilkiw, J.E.
Schaumburg, Ill. : American Veterinary Medical Association;

1992 Dec. American journal of veterinary research v. 53 (12): p. 2337-2342; 1992 Dec. Includes references.

Language: English

Descriptors: Fowls; Muscle relaxants

Abstract: Atracurium besylate, a nondepolarizing neuromuscular blocking agent, was administered to 24 isoflurane-anesthetized domestic chickens. Birds were randomly assigned to 4 groups, and atracurium was administered at dosage of 0.15, 0.25, 0.35 or 0.45 mg/kg of body weight. The time of onset of twitch depression, the amount of maximal twitch depression, and the duration of muscular relaxation were recorded. After return to control twitch height, atracurium was further administered to achieve > 75% twitch depression. When twitch depression reached 75% during noninduced recovery, 0.5 mg of edrophonium/kg was administered to reverse the muscle relaxation. Throughout the experimental period, cardiovascular, arterial blood gas, and acid-base variables were monitored. The effective dosage of atracurium to result in 95% twitch depression in 50% of birds, (ED95/9595) was calculated, using probit analysis, to be 0.25 mg/kg, whereas the ED95/95 the dosage of atracurium to result in 95% twitch depression in 95% of birds, was calculated by probit analysis to be 0.46 mg/kg. The total duration of action at dosage of 0.25 mg/kg was 34.5 +/- 5.8 minutes; at the highest dosage (0.45 mg/kg), total duration increased to 47.8 +/- 10.3 minutes. The return to control twitch height was greatly hastened by administration of edrophonium. Small, but statistically significant changes in heart rate and systolic blood pressure, were associated with administration of atracurium and edrophonium. These changes would not be clinically relevant. In this study, atracurium was found to be safe and reliable for induction of muscle relaxation in isoflurane anesthetized chickens.

296 NAL Call. No.: 41.8 AM3A
Neuromuscular blockade by use of atracurium in anesthetized llamas. Hildebrand, S.V.; Hill, T. III
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Mar. American journal of veterinary research v. 54 (3): p. 429-433; 1993 Mar. Includes references.

Language: English

Descriptors: Llamas; Anesthesia; Muscle relaxants; Dosage; Boluses; Intravenous injection; Adverse effects

Abstract: Anesthesia was induced in 8 healthy llamas by administration of guaifenesin and ketamine, and was maintained with halothane in oxygen. On 2 separate experimental days, atracurium was given to induce 95 to 99% reduction of evoked hind limb digital extensor tension (twitch). For the first part of the study, atracurium was given iv as repeat boluses, with muscle twitch strength being allowed to return without intervention to 75% of baseline after each bolus before the subsequent bolus was given. A total of 5 bolus doses of atracurium was given. For the first bolus, 0.15 mg/kg of body weight iv, and for subsequent boluses, 0.08 mg/kg, induced desired relaxation. Onset of relaxation was slightly more rapid for repeat, compared with initial, bolus. Duration of relaxation and recovery time were similar to initial and repeat doses. Maximal twitch reduction was observed in 4 +/- 0.2 minutes (mean +/-SEM). Duration from maximal twitch reduction to 10% recovery was 6.3 +/- 0.4 minutes. Twitch recovery from 10 to 50% of baseline took 11.6 +/- 0.6 minutes. Twitch recovery from 10 to 75% recovery took 19.5 +/- 1.1 minutes. Recovery from 10% twitch to 50% fade took 12.8 +/-

0.5 minutes. Fade at 50% recovery of twitch was 39 +/- 0.02%. Significant (P < 0.05) animal-to-animal variation was observed in twitch recovery times. For the second part of the study, atracurium was initially given IV as a 0.15-mg/kg bolus, followed by infusion for 1 to 2 hours. Infusion rate required some early adjustment to maintain desired relaxation, but the rate that prevailed was 1.07 +/- 0.07 ml/kg/h (0.4 mg of atracurium/ml of saline solution). Recovery of muscle twitch was similar to that previously mentioned for repeat bolus administration, At the end of the study, edrophonium (0.5 mg/kg) with atropine (0.01 mg/kg, IV) was effective in antagonizing residual neuromuscular blockade by atracurium. All llamas recovered without injury from anesthesia, although 1 llama had a rough recovery. It was concl

297 NAL Call. No.: 391.8 T66
Neuromuscular blocking activity of a glycosidic extract of the plant Sarcolobus globosus.
Mustafa, M.R.; Hadi, A.H.A.
Oxford : Pergamon Press; 1990.
Toxicon v. 28 (10): p. 1237-1239; 1990. Includes references.

Language: English

Descriptors: Asclepiadaceae; Plant composition; Seeds; Plant extracts; Glycosides; Nerve tissue; Muscle tissue; Neurophysiology; Paralysis; Rats; Chicks; Frogs

Abstract: Crude glycoside extracts from the plant. Sarcolobus globosus, were tested on the rat phrenic nerve diaphragm, chick biventer cervicis and frog rectus abdominis preparations. Nerve-stimulated twitches were inhibited by the extract. The muscle paralysis was not similar to that by curare-like blockers as it was not reversed by neostigmine or by a tetanus. Although contractures to acetylcholine or carbachol were not affected by 0.6 mg/ml of the extract, higher concentration of the extracts (3 mg/ml) depressed the log dose response curve of acetylcholine and carbachol. The results suggest that the neuromuscular blocking effect of the extracts is either dose-dependent or due to a mixture of toxins with presynaptic or postsynaptic actions.

298 NAL Call. No.: SF951.V47
Neuromuscular blocking agents in equine anesthesia.
Hildebrand, S.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 587-606; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Muscle relaxants

299 NAL Call. No.: 410.9 P94
Normal physiologic values of neonatal pigs and the effects of isoflurane and pentobarbital anesthesia.
Eisenhauer, C.L.; Matsuda, L.S.; Uyehara, C.F.T.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1994 Jun. Laboratory animal science v. 44 (3): p. 245-252; 1994 Jun. Includes references.

Language: English

Descriptors: Piglets; Animal models; Newborn animals; Animal physiology; Inhaled anesthetics; Pentobarbital; Anesthesia

Abstract: The newborn piglet is becoming increasingly popular

as a model for neonatal studies. However data on normal physiologic baseline values and the influence of anesthesia on these values are scarce. In this study, we describe husbandry, surgical, and experimental methods used to establish a conscious, chronically catheterized neonatal piglet model, which enabled study of unrestrained piglets recovered from surgery and anesthesia, for up to 10 days after separation from the sow Chronic catheterization allowed repeated experiments to be performed in the same animals, reducing the number of animals needed for study. Presented herein are baseline resting hemodynamic and blood chemistry data and circulating hormone measurements of vasopressin, plasma renin activity, adrenocorticotrophic hormone, cortisol, epinephrine, norepinephrine, and dopamine for piglets in the first 2 weeks of life. Also, in two series of experiments, the effects of the gas anesthetic isoflurane and the injectable anesthetic pentobarbital on these baseline values were investigated. Results indicate that both pentobarbital and isoflurane elicit changes in blood pressure, heart rate, vasopressin, plasma renin activity and ventilatory drive that should be considered when using either of these anesthetic agents in acute studies.

300 NAL Call. No.: SF951.V47
Ophthalmic procedures and surgery in the standing horse.
Wilkie, D.A.
Philadelphia, Pa. : W.B. Saunders; 1991 Dec.
The Veterinary clinics of North America : equine practice v. 7 (3): p. 535-547; 1991 Dec. In the series analytic: Standing surgery / edited by Alicia L. Bertone. Includes references.

Language: English

Descriptors: Horses; Eyes; Surgery; Eyelids; Lacrimal apparatus; Cornea; Anesthesia

301 NAL Call. No.: SF601.A46
Osteoarthritis in the horses: the role of the nervous system.
Caron, J.P.; Bowker, R.M.; Toppin, D.S.
Lexington, Ky. : The Association; 1993.
Proceedings of the annual convention of the American Association of Equine Practitioners. p. 13-20; 1993. Meeting helding on November 29-December 2, 1992, Orlando, Florida. Includes references.

Language: English

Descriptors: Horses; Osteoarthritis; Pain

302 NAL Call. No.: 41.8 SO8
Ostrich (Struthio camelus) immobilisation using carfentanil and xylazine and reversal with yohimbine and naltrexone.
Raath, J.P.; Quandt, S.K.F.; Malan, J.H.
Pretoria : The Association; 1992 Dec.
Journal of the South African Veterinary Association v. 63 (4): p. 138-140; 1992 Dec. Includes references.

Language: English

Descriptors: Ostriches; Anesthesia

303 NAL Call. No.: SF910.P34A55 1992
Pain research and therapy: history, current status, and future goals. Bonica, J.J.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 1-29; 1992. Includes references.

Language: English

Descriptors: Animals; Pain; Research; Therapy; Drug therapy; Analgesics; Livestock; Laboratory animals; Surgical operations; Anesthesia

304 NAL Call. No.: 41.8 AM3A
Parasympathetic influence on the arrhythmogenicity of graded dobutamine infusions in halothane-anesthetized horses.
Light, G.S.; Hellyer, P.W.; Swanson, C.R.
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Jul. American journal of veterinary research v. 53 (7): p. 1154-1160; 1992 Jul. Includes references.

Language: English

Descriptors: Horses; Halothane; Cardiovascular agents; Autonomic nervous system; Hemodynamics; Dosage; Arrhythmia

Abstract: We investigated the influence of parasympathetic tone on the arrhythmogenicity of graded dobutamine infusions in horses anesthetized under clinical conditions. Six horses were used in 9 trials. Two consecutive series of graded dobutamine infusions were given IV; each continuous graded dobutamine infusion was administered for 20 minutes. The dobutamine infusion dosage (5, 10, 15, and 20 microgram/kg of body weight/min) was increased at 5-minute intervals. Isovolumetric saline solution vehicle (v) or atropine (A; 0.04 mg(kg) was administered IV, or bilateral vagotomy (VG) was performed as a treatment before the second series of dobutamine infusions. Treatment was not administered prior to the first dobutamine infusion. Significant interaction between treatment and dosage of dobutamine infusion existed for differences from baseline for mean arterial pressure, systolic arterial pressure, diastolic arterial pressure, heart rate, and cardiac index at dosages of 5 and 10 micrograms of dobutamine/kg/min, given IV and for heart rate at dosage of 15 micrograms of dobutamine/kg/min, given IV. Results for group-V horses were different from those for group-A and group-VG horses, but were not different between group-A and group-VG horses in all aforementioned cases, except for heart rate and cardiac index at dosage of 5 micrograms of dobutamine/kg/min, given IV. Normal sinus rhythm, second-degree atrioventricular block, and bradyarrhythmias predominated during low dobutamine infusion rates during the first infusion series (nontreated horses) and in group-V horses during the second infusion series. Only tachyarrhythmias were observed during the second infusion series in the horses of the A and VG groups. The modulating influence of parasympathetic nervous system activity on hemodynamics and development of arrhythmia was conspicuous during low dobutamine infusion rates. Significant differences were not observed in hemodynamic responses to dobutamine, with respect to parasympathet

305 NAL Call. No.: SF955.E6
Paravertebral thoracolumbar anaesthesia in 10 horses.
Moon, P.F.; Suter, C.M.
Newmarket : R & W Publications; 1993 Jul.
Equine veterinary journal v. 25 (4): p. 304-308; 1993 Jul. Includes references.

Language: English

Descriptors: Horses; Anesthesia

306 NAL Call. No.: 41.8 V643

Pentobarbitone inhibits the stress response to transport in male goats. Sanhouri, A.A.; Jones, R.S.; Dobson, H.
London : Bailliere Tindall; 1991 Jan.
British veterinary journal v. 47 (1): p. 42-48; 1991 Jan.
Includes references.

Language: English

Descriptors: Goats; Stress; Pentobarbital; Transport of animals; Anesthesia; Hydrocortisone; Blood plasma; Blood sugar; Heart rate; Respiration rate

Abstract: Pentobarbitone (20 mg/kg i.v.) blocked plasma cortisol release when administered either before a 20 min journey or during a 2 h journey. This confirms that pentobarbitone can block stimulated, as well as resting, cortisol secretion. In general, blood glucose concentrations were not increased above 90 mg/100 ml until at least 30 min after the start of transport; however, this increase was also blocked by pentobarbitone administered 30 min into the 2 h journey. Significant increases in respiratory and heart rates occurred within 15 min of the start of transport; pentobarbitone caused an immediate decrease in these parameters. In conclusion, pentobarbitone was shown to reverse many metabolic changes induced by transport.

307 NAL Call. No.: 49 J82
Performance and health of weanling bulls after butorphanol and xylazine administration at castration.
Faulkner, D.B.; Eurell, T.; Tranquilli, W.J.; Ott, R.S.; Ohl, M.W.; Cmarik, G.F.; Zinn, G.
Champaign, Ill. : American Society of Animal Science; 1992 Oct. Journal of animal science v. 70 (10): p. 2970-2974; 1992 Oct. Includes references.

Language: English

Descriptors: Calves; Steers; Castration; Analgesics; Liveweight gain; Feed intake; Feed conversion; Blood serum; Hydrocortisone; Haptoglobins

Abstract: A total of 268 crossbred, 6- to 9-mo-old, bull calves (214 +/- 19 kg) were used in two separate 27-d experiments to assess the effects of butorphanol and xylazine administration (BXA) on the subsequent performance and health of beef calves. In each experiment, calves were randomly allotted to four treatment groups: 1) castration with BXA, 2) castration without BXA, 3) no castration with BXA, and 4) no castration without BXA. There were two replicates within each experiment. The intravenous administration of .07 mg/kg of butorphanol and .02 mg/kg of xylazine occurred 90 s before tail hold and castration procedures. Calves were placed in a squeeze chute and manually restrained by tail elevation. In Exp. 2, the cattle also were scored for chute activity (on a 1 to 5 scale with 5 being the most active). Cattle were weighed at the beginning and end of the experiment, feed intake was recorded daily, and cattle were monitored daily for respiratory disease. There were no castration X BXA interactions (P > .51). Castration reduced (P < .01) daily gain and gain/feed and tended (P = .13) to reduce feed intake. The administration of BXA had no effect (P > .05) on gain or gain/feed but did tend (P = .13) to reduce feed intake. No differences (P > .45) were observed in morbidity or mortality due to either BXA or castration. Castration and BXA increased (P < .01) blood cortisol levels on d 3, whereas control animals had reduced cortisol levels. Castration increased (P < .05) haptoglobin levels on d 3, but BXA had no effect (P > .05) on serum haptoglobin concentrations on d 3. Chute activity was reduced (P < .05) by castration and BXA. In this

study, animal performance was reduced by castration. The administration of BXA did not alter stress indicators or improve performance of castrated bull calves. Serum haptoglobin may be a more specific indicator of the inflammatory process in cattle, whereas serum cortisol may be an indicator of the whole-body stress response.

308 NAL Call. No.: 41.8 M69
Performing epidural anesthesia in swine.
Branson, K.R.; Thurmon, J.C.
Lenexa, Kan. : Veterinary Medicine Publishing Co; 1990 Dec.
Veterinary medicine v. 85 (12): p. 1345, 1348-1350. ill; 1990 Dec. Includes references.

Language: English

Descriptors: Pigs; Conduction anesthesia; Injectable anesthetics; Techniques; Complications

309 NAL Call. No.: SF951.V47
Perineural and spinal anesthesia.
Gaynor, J.S.; Hubbell, J.A.E.
Philadelphia, Pa. : W.B. Saunders; 1991 Dec.
The Veterinary clinics of North America : equine practice v. 7 (3): p. 501-519; 1991 Dec. In the series analytic: Standing surgery / edited by Alicia L. Bertone. Includes references.

Language: English

Descriptors: Horses; Local anesthesia; Anesthesia; Spinal cord; Neurons; Body regions

310 NAL Call. No.: 410.9 P94
Peritracheolaryngeal abscess: an iatrogenic complication of endotracheal intubation in swine.
Iliff-Sizemore, S.A.; Chrisp, C.E.; Rush, H.G.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1989 Sep. Laboratory animal science v. 39 (5): p. 455-458. ill; 1989 Sep. Includes references.

Language: English

Descriptors: Pigs; Trachea; Larynx; Abscesses; Bacteria; Anesthesia; Tubes

311 NAL Call. No.: SF915.J63
The pharmacokinetics and locomotor activity of alfentanil in the horse. Pascoe, P.J.; Black, W.D.; Claxton, J.M.; Sansom, R.E.
Oxford : Blackwell Scientific Publications; 1991 Sep.
Journal of veterinary pharmacology and therapeutics v. 14 (3): p. 317-325; 1991 Sep. Includes references.

Language: English

Descriptors: Horses; Analgesics; Opioids; Pharmacokinetics; Dosage; Locomotion

312 NAL Call. No.: 41.8 Am3A
Pharmacokinetics and pharmacodynamics of acepromazine in horses. Marroum, P.J. \u US Food and Drug Administration, Rockville, MD; Webb, A.I.; Aeschbacher, G.; Curry, S.H.
Schaumburg, Ill. : American Veterinary Medical Association; 1994 Oct. American journal of veterinary research v. 55 (10): p. 1428-1433; 1994 Oct. Includes references.

Language: English

Descriptors: Horses; Neuroleptics; Pharmacokinetics; Pharmacodynamics; Drug effects; Blood pressure; Heart rate; Hematocrit; Respiration; Blood; Gases; Ph

Abstract: A specific, sensitive, reverse-phase high-performance liquid chromatographic assay for acepromazine, with analytic sensitivity as low as 5 ng/ml of plasma, and electrochemical detection with an oxidation potential of 0.7 V, was used to study the pharmacokinetics of acepromazine given at a dosage of 0.15 mg/kg of body weight in horses. The relation between effect and pharmacokinetics of the drug was examined. The effects studied included those on blood pressure, pulse, PCV, measures of respiration function, and sedation. Intravenously administered doses led to a biphasic concentration decay pattern with an alpha-phase distribution half-life of < 3 minutes. The beta-phase half-life was in the range of 50 to 150 minutes. The CNS effects peaked at 20 minutes after administration, and the hemodynamic effects peaked at 100 minutes. In all horses, the most sensitive variable was the PCV, which decreased by up to 20% ($P < 0.0001$). Systolic, diastolic, and mean blood pressures decreased ($P < 0.0001$); heart rate was unchanged ($P > 0.05$). Neither blood gas tensions nor blood pH changed noticeably ($P > 0.05$). In all horses studied, acepromazine had a significant ($P < 0.0001$) sedative effect, as observed by posture and alertness. None of the observed pharmacodynamic effects correlated well with plasma acepromazine concentration. These effects persisted beyond the time of detectable acepromazine concentration, indicating that they might be caused by active metabolites, or that their timing could result from complex pharmacokinetic compartment influences.

313 NAL Call. No.: 41.8 Am3A
Pharmacokinetics of ibuprofen in lactating dairy cows.
DeGraves, F.J.; Anderson, K.L.; Aucoin, D.P.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Jul. American journal of veterinary research v. 54 (7): p. 1133-1135; 1993 Jul. Includes references.

Language: English

Descriptors: Dairy cows; Lactating females; Analgesics; Non-steroidal antiinflammatory agents; Pharmacokinetics; Intravenous injection; Oral administration; Blood serum; Milk; Adverse effects

Abstract: The pharmacokinetics of ibuprofen were studied in 6 adult lactating dairy cows after a single iv or oral administration of ibuprofen (25 mg/kg of body weight). lbuprofen concentrations in milk and serum were analyzed by use of high-performance liquid chromatography. The lower limit of detection of the ibuprofen assay was 50 ng/ml. Serum ibuprofen concentration-time curves after IV administration best fit an open two-compartment model. Harmonic mean volume of distribution at steady state was 0.14 (range, 0.12 to 0.17) L/kg, elimination half-life was 1.55 (range, 1.33 to 1.73) hours, and total clearance was 86.2 (range, 68.8 to 106.2) ml/kg/h. Harmonic mean oral bioavailability was 99% (range, 79 to 112). Adverse effects were not observed in cows given ibuprofen.

314 NAL Call. No.: SF951.V47
The pharmacology of local anesthetics.
Day, T.K.; Skarda, R.T.
Philadelphia, Pa. : W.B. Saunders; 1991 Dec.

The Veterinary clinics of North America : equine practice v. 7 (3): p. 489-500; 1991 Dec. In the series analytic: Standing surgery / edited by Alicia L. Bertone. Includes references.

Language: English

Descriptors: Horses; Local anesthetics; Local anesthesia; Electrophysiology; Pharmacodynamics; Pharmacokinetics

315 NAL Call. No.: SF910.P34A55 1992
Physiologic responses after caudal epidural administration of detomidine in horses and xylaxine in cattle.
Skarda, R.T.; Muir, W.W. III
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 292-302, 312-313; 1992. Includes references.

Language: English

Descriptors: Horses; Cattle; Xylazine; Analgesics; Drug effects; Physiological functions; Cardiovascular system; Respiratory system; Statistical analysis

316 NAL Call. No.: 41.8 V641
Physiological responses of sheep to two hours anaesthesia with diazepam-ketamine.
Coulson, N.M.; Januszkiewicz, A.J.; Ripple, G.R.
London : The Association; 1991 Oct12.
The Veterinary record : journal of the British Veterinary Association v. 129 (15): p. 329-332; 1991 Oct12. Includes references.

Language: English

Descriptors: Sheep; Anesthesia; Diazepam; Ketamine; Drug combinations; Respiration; Cardiovascular system; Adverse effects

317 NAL Call. No.: 41.8 V643
Plasma concentrations of cortisol, testosterone, glucose and blood gases in male goats during anaesthesia with pentobarbitone sodium. Sanhouri, A.A.; Jones, R.S.; Dobson, H.
London : Bailliere Tindall; 1990 Jan.
British veterinary journal v. 146 (1): p. 36-42; 1990 Jan. Includes references.

Language: English

Descriptors: Goats; Male animals; Anesthesia; Pentobarbital; Cortisol; Testosterone; Blood glucose; Gases; Blood; Fasting

318 NAL Call. No.: SF955.E6
Plasma histamine levels during exploratory laparotomies in suspected equine grass sickness cases.
Hodson, N.; Hunt, J.; Causon, R.C.
Newmarket : R & W Publications; 1990 Sep.
Equine veterinary journal v. 22 (5): p. 362-363; 1990 Sep. Includes references.

Language: English

Descriptors: Horses; Grass sickness; Digestive disorders; Anesthesia; Histamine; Laparotomy; Blood plasma

319 NAL Call. No.: SF911.V43

Postanesthetic equine myopathy suggestive of malignant hyperthermia: a case report.
Klein, L.; Ailes, N.; Fackelman, G.E.; Kellon, E.; Rosenberg, H. Hagerstown, Md. : J.B. Lippincott Company; 1989 Nov.
Veterinary surgery v. 18 (6): p. 479-482; 1989 Nov. Includes references.

Language: English

Descriptors: Horses; Muscular diseases; Hyperthermia; Case studies; Halothane; Anesthesia; Etiology

320 NAL Call. No.: SF778.J68
Postanesthetic pulmonary edema in an Arab stallion.
Day, T.K.; Holcombe, S.; Muir, W.W. III
San Antonio, Tx. : Veterinary Emergency & Critical Care Society; 1993 Jul. Journal of veterinary emergency and critical care v. 3 (2): p. 90-95; 1993 Jul. Includes references.

Language: English

Descriptors: Stallions; Anesthesia; Complications; Lungs; Edema; Trauma; Treatment; Pathogenesis; Case reports

321 NAL Call. No.: 41.8 Am3
Postanesthetic recumbency associated with hyperkalemic periodic paralysis in a Quarter horse.
Robertson, S.A.; Green, S.L.; Carter, S.W.; Bolon, B.N.; Brown, M.P.; Shields, R.P.
Schaumburg, Ill. : The Association; 1992 Oct15.
Journal of the American Veterinary Medical Association v. 201 (8): p. 1209-1212; 1992 Oct15. Includes references.

Language: English

Descriptors: Horses; Hyperkalemia; Anesthesia; Complications; Case reports

322 NAL Call. No.: 41.8 V641
Postoperative analgesia using phenylbutazone, flunixin or carprofen in horses. Johnson, C.B.; Taylor, P.M.; Young, S.S.; Brearley, J.C.
London : The British Veterinary Association; 1993 Oct02.
The Veterinary record : journal of the British Veterinary Association v. 133 (14): p. 336-338; 1993 Oct02. Includes references.

Language: English

Descriptors: Horses; Analgesics; Postoperative care

323 NAL Call. No.: aHV4701.A952
Post-operative care and analgesia of farm animals used in biomedical research. Randolph, M.M.
Beltsville, MD : National Agricultural Library, AWIC, 1990-; 1994. Animal Welfare Information Center newsletter v. 5 (1): p. 11-13; 1994. In the special issue: Farm animals in research and teaching. Includes references.

Language: English

Descriptors: Livestock; Postoperative care; Medical research; Analgesics; Pain; Animal welfare

324 NAL Call. No.: SF951.J65
Preliminary studies on the use of plasma beta-endorphin in horses as an indicator of stress and pain.
McCarthy, R.N.; Jeffcott, L.B.; Clarke, I.J.
Lake Elsinore, Calif. : William E. Jones, DVM; 1993 Apr.
Journal of equine veterinary science v. 13 (4): p. 216-219; 1993 Apr. Includes references.

Language: English

Descriptors: Horses; Endorphins

325 NAL Call. No.: 41.8 R312
Preliminary studies on the use of propofol in the domestic pigeon (Columba livia).
Fitzgerald, G.; Cooper, J.E.
London : British Veterinary Association; 1990 Nov.
Research in veterinary science v. 49 (3): p. 334-338; 1990 Nov. Includes references.

Language: English

Descriptors: Pigeons; Injectable anesthetics; Intravenous injection; Safety; Ketamine

326 NAL Call. No.: 41.8 AM3
Premature ventricular contractions and apparent hypertension during anesthesia in an ostrich.
Matthews, N.S.; Burba, D.J.; Cornick, J.L.
Schaumburg, Ill. : The Association; 1991 Jun01.
Journal of the American Veterinary Medical Association v. 198 (11): p. 1959-1961; 1991 Jun01. Includes references.

Language: English

Descriptors: Ostriches; Anesthesia; Hypertension; Ventricles; Contraction; Anesthetics; Adverse effects; Case reports

327 NAL Call. No.: SF951.V47 v.6 no.3
Principles and techniques of equine anesthesia.
Riebold, T. W.
Philadelphia : Saunders,; 1990.
x p., p. 485-741 : ill. ; 24 cm. (Veterinary clinics of North America. Equine practice, 6, no. 3). December 1990. Includes bibliographical references and index.

Language: English

Descriptors: Horses; Veterinary anesthesia

328 NAL Call. No.: 41.8 M69
Problems encountered when anesthetizing potbellied pigs.
Ko, J.C.H.; Thurmon, J.C.; Tranquilli, W.A.; Benson, G.J.; Olson, W.A. Lenexa, Kan. : Veterinary Medicine Publishing Co; 1993 May05. Veterinary medicine v. 88 (5): p. 435-437, 440; 1993 May05.

Language: English

Descriptors: Miniature pigs; Anesthesia; Intramuscular injection; Intravenous injection; Inhalation; Animal anatomy

329 NAL Call. No.: 41.8 AM3
Prolongation of anesthesia with xylazine, ketamine, and guaifenesin in horses: 64 cases (1986-1989).

McCarty, J.E.; Trim, C.M.; Ferguson, D.
Schaumburg, Ill. : The Association; 1990 Dec15.
Journal of the American Veterinary Medical Association v. 197 (12): p. 1646-1650; 1990 Dec15. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Duration; Xylazine; Ketamine; Guaifenesin; Adverse effects

330 NAL Call. No.: SF955.E6
Prolongation of xylazine/ketamine induced recumbency time with temazepam in horses.
Matthews, N.S.; Dollars, N.S.; Young, D.B.; Shawley, R.V.
Newmarket : R & W Publications; 1991 Jan.
Equine veterinary journal v. 23 (1): p. 8-10; 1991 Jan.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Xylazine; Ketamine; Benzodiazepines; Drug combinations

331 NAL Call. No.: 41.8 AM3
Prophylactic use of dantrolene associated with prolonged postanesthetic recumbency in a horse.
Valverde, A.; Boyd, C.J.; Dyson, D.H.; Pascoe, P.J.
Schaumburg, Ill. : The Association; 1990 Oct15.
Journal of the American Veterinary Medical Association v. 197 (8): p. 1051-1053; 1990 Oct15. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Postoperative complications; Muscle relaxants; Chemoprophylaxis; Muscular diseases; Case studies

332 NAL Call. No.: SF915.J63
Propofol as an induction agent in the goat: a pharmacokinetic study. Reid, J.; Nolan, A.M.; Welsh, E.
Oxford, Blackwell Scientific Publications; 1993 Dec.
Journal of veterinary pharmacology and therapeutics v. 16 (4): p. 488-493; 1993 Dec. Includes references.

Language: English

Descriptors: Goats; Pharmacokinetics; Injectable anesthetics

333 NAL Call. No.: SF911.V43
Pulse oximetry in horses.
Whitehair, K.J.; Watney, G.C.G.; Leith, D.E.; Debowes, R.M.
Hagerstown, Md. : J.B. Lippincott Company; 1990 May.
Veterinary surgery v. 19 (3): p. 243-248. ill; 1990 May.
Includes references.

Language: English

Descriptors: Horses; Oxygen; Hemoglobin; Saturation; Measurement; Anesthesia; Instruments; Ears; Tongue

334 NAL Call. No.: aHV4701.A952
Recognition of pain in farm animals.
Breazile, J.E.
Beltsville, MD : National Agricultural Library, AWIC, 1990-; 1994. Animal Welfare Information Center newsletter v. 5 (1):

p. 5-7; 1994. In the special issue: Farm animals in research and teaching. Includes references.

Language: English

Descriptors: Livestock; Pain; Animal welfare

335 NAL Call. No.: 41.8 Am3A
Recovery of horses from inhalation anesthesia.
Whitehair, K.J.; Steffey, E.P.; Willitis, N.H.; Woliner, M.J.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Oct. American journal of veterinary research v. 54 (10): p. 1693-1702; 1993 Oct. includes references.

Language: English

Descriptors: Horses; Inhaled anesthetics; Halothane; Recovery; Time; Animal behavior; Blood pressure; Heart rate; Respiration rate; Respiratory gases; Hematocrit; Blood protein

Abstract: To study behavioral and cardiopulmonary characteristics of horses recovering from inhalation anesthesia, 6 nonmedicated horses were anesthetized under laboratory conditions on 3 different days, with either halothane or isoflurane in O2. Anesthesia was maintained at constant dose (1.5 times the minimum alveolar concentration [MAC]) of halothane in O2 for 1 hour (H1), halothane in O2 for 3 hours (H3), or isoflurane in O2 for 3 hours (13). The order of exposure was set up as a pair of Latin squares to account for horse and trial effects. Circulatory (arterial blood pressure and heart rate) and respiratory (frequency, PaCO2, PaO, pHa) variables were monitored during anesthesia and for as long as possible during the recovery period. End-tidal percentage of the inhaled agent was measured every 15 seconds by automated mass spectrometry, then by hand-sampling after horses started moving. Times of recovery events, including movement of the eyelids, ears, head, and limbs, head lift, chewing, swallowing, first sternal posture and stand attempts, and the number of sternal posture and stand attempts, were recorded. The washout curve or the ET ratio (end-tidal percentage of the inhaled agent at time t to end-tidal percentage of the inhaled agent at the time the anesthesia circuit was disconnected from the tracheal tube) plotted against time was similar for HI and H3. The slower, then faster (compared with halothane groups) washout curve of isoflurane was explainable by changes in respiratory frequency as horses awakened and by lower blood/gas solubility of isoflurane. The respiratory depressant effects of isoflurane were marked and were more progressive than those for halothane at the same 1.5 MAC dose. During the first 15 minutes of recovery, respiratory frequency for group-13 horses increased significantly ($P < 0.05$), compared with that for the halothane groups. For all groups, arterial blood pressure increased throughout the early recovery period and heart rate remained constant. Preanesthesia temperament of horses and the inhalation agent used did not influence the time of the early recovery events (movement of eyelids, ears, head, and limbs), except for head lift. For events that occurred at anesthetic end-tidal percentage < 0.20, or when horses were awake, temperament was the only factor that significantly influenced the nature of the recovery (chewing $P = 0.04$, extubation $P = 0.001$, first stand attempt $P = 0.008$, and standing $P = 0.005$). The quality of the recoveries did not differ significantly among groups (H1, H3, I3) or horses; however 5 of 6 horses recovering from the H1 exposure had ideal recovery. During recovery, the anesthetic end-tidal percentage did not differ significantly among groups. However, when concentrations were compared on the basis of anesthetic potency (ie, MAC multiple) a significantly ($P < 0.05$) lower MAC multiple of isoflurane

was measured for the events ear moveme

336 NAL Call. No.: SF951.V47
Regional anesthesia.
LeBlanc, P.H.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 693-704; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Local anesthesia; Peripheral nerves

337 NAL Call. No.: 41.8 Am3A
Relation between body temperature and dexmedetomidine-induced minimum alveolar concentration and respiratory changes in isoflurane-anesthetized miniature swine.
Vainio, O.M.; Bloor, B.C.
Schaumburg, Ill. : American Veterinary Medical Association; 1994 Jul. American journal of veterinary research v. 55 (7): p. 1000-1006; 1994 Jul. Includes references.

Language: English

Descriptors: Miniature pigs; Body temperature; Medetomidine; Isomers; Anesthesia; Anesthetics; Requirements; Cardiovascular system; Respiratory system

Abstract: Dexmedetomidine (Dex), an alpha 2-receptor agonist, is the pharmacologically active d-isomer of medetomidine, a compound used as a sedative in veterinary medicine. Isoflurane anesthetic requirement (minimum alveolar concentration; MAC), rectal temperature, and cardiorespiratory variables were studied in chronically instrumented Yucatan miniature swine during DEX (20 micrograms/kg of body weight)-induced changes in body temperature. All studies were performed at room temperature of 22 C. The DEX was given as a 2-minute infusion into the left atrium. Each pig was studied twice. For protocol 1, the core temperature of the pigs was maintained at (mean +/- SD) 38.2 +/- 0.5 C by use of a thermostatically controlled water blanket and a heating lamp. For protocol 2, the core temperature was not externally manipulated and it decreased from 38.2 +/- 0.4 C to 32.2 +/- 1.2 C during the more than 3 hours of the protocol. Control isoflurane MAC was 1.66 +/- 0.2% and was 1.74 +/- 0.3% for protocols 1 and 2, respectively; DEX decreased MAC by 34 and 44%, respectively. For protocol 1, reduction in MAC after DEX administration returned by 50 and 80% at 84 and 138 minutes, respectively. If rectal temperature was not maintained (eg, allowed to decrease), MAC was reduced by 57% at the same time as the return to 80% in the swine with maintained body temperature. Respiratory rate and minute ventilation were significantly higher in swine with maintained temperature. The PaCO2 was lower and, accordingly, pH was higher in these swine. Blood pressure and heart rate were not affected by temperature changes.

338 NAL Call. No.: SF911.V43
The reliability of endoscopic examination in assessment of arytenoid cartilage movement in horses. II. Influence of side of examination, reexamination, and sedation.
Ducharme, N.G.; Hackett, R.P.; Fubini, S.L.; Erb, H.N.
Hagerstown, Md. : J.B. Lippincott Company; 1991 May.
Veterinary surgery v. 20 (3): p. 180-184; 1991 May. Includes references.

Language: English

Descriptors: Horses; Larynx; Respiratory system; Endoscopy; Evaluation; Video recordings; Analgesics; Xylazine

339 NAL Call. No.: 41.8 C81
Repetitive injectable anesthesia in a 27-year-old horse.
Matthews, N.S.; Hartsfield, S.M.; Sanders, E.A.; Light, G.S.; Walker, M.A. Ithaca, N.Y. : Cornell Veterinarian, Inc; 1993 Jul.
The Cornell veterinarian v. 83 (3): p. 219-225; 1993 Jul.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Geriatrics

340 NAL Call. No.: SF601.A46
The responses to detomidine usage as a sole agent or in combination in the horse.
Short, C.E.; Otto, K.; Gilbert, M.; Maylin, G.A.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (35th): p. 153-166; 1989.
Meeting held December 3-6 1989, Boston, Massachusetts.
Includes references.

Language: English

Descriptors: Horses; Analgesics; Safety; Anesthetics; Anesthesia

341 NAL Call. No.: 41.8 AM3A
Resuscitation of anesthetized endotoxemic pigs by use of hypertonic saline solution containing dextran.
Hellyer, P.W.; Meyer, R.E.; Olson, N.C.
Schaumburg, Ill. : American Veterinary Medical Association; 1993 Feb. American journal of veterinary research v. 54 (2): p. 280-286; 1993 Feb. Includes references.

Language: English

Descriptors: Pigs; Endotoxemia; Endotoxins; Escherichia coli; Resuscitation; Dextran; Solutions; Sodium chloride; Hemodynamics; Drug effects

Abstract: We evaluated the biochemical and hemodynamic response to hypertonic saline solution plus dextran in isoflurane-anesthetized pigs infused IV with Escherichia coli endotoxin (5 micrograms/kg of body weight for 0 to 1 hour + 2 micrograms/kg for 1 to 4 hours). After 120 minutes of endotoxemia, pigs were treated with a bolus (4 ml/kg over 3 minutes) of either normal saline solution (NSS; 0.9% NaCl), or hypertonic saline solution plus dextran (HSSD; 7.5% NaCl + 6% dextran-70). Administration of HSSD significantly ($P < 0.05$) increased serum osmolality and concentrations of sodium and chloride for approximately 2 hours during endotoxemia. Plasma total protein concentration decreased significantly ($P < 0.05$) for 2 hours after treatment with HSSD, indicating hemodilution and increased plasma volume. Although HSSD transiently increased cardiac index (CI) for approximately 15 minutes, this effect was not sustained; however, the endotoxin-induced decrease in CI was ameliorated from 120 to 180 minutes. In pigs of the endotoxin + NSS group from 180 to 240 minutes, CI decreased significantly ($P < 0.05$), compared with baseline and control values. The endotoxin-induced increases in mean pulmonary arterial pressure and pulmonary vascular resistance

were not attenuated by HSSD. At 135 minutes, total peripheral vascular resistance was transiently lower (for approx 15 minutes) in pigs treated with HSSD, compared with control pigs. The endotoxin-induced increase in plasma lactate concentration was not attenuated by HSSD, indicating continued peripheral O2 debt. We conclude that, despite sustained increases in serum osmolality and concentrations of sodium and chloride, HSSD has only transiently beneficial cardiopulmonary effects during endotoxemia in pigs.

342 NAL Call. No.: SF951.E62
A review of chemical restraint for standing procedures in the horse. Moll, H.D.; Pablo, L.S.; Purohit, R.C.
Santa Barbara, Calif. : Veterinary Practice Publishing Company; 1989 Jun. Equine practice v. 11 (6): p. 25-30; 1989 Jun. Includes references.

Language: English

Descriptors: Horses; Restraint of animals; Anesthetics; Neuroleptics

343 NAL Call. No.: SF910.P34A55 1992
A review of equine pain models.
Matthews, N.S.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 403-407, 430-432; 1992. Includes references.

Language: English

Descriptors: Horses; Pain; Models; Analgesics; Evaluation

344 NAL Call. No.: SF601.A47
Role of socialization, stress and sex of chickens on response to anesthesia and on response to an organophosphate neurotoxicant.
Odom, A.; Gross, W.B.; Ehrich, M.
Manhattan, Kan. : Kansas State University; 1992 Apr.
Veterinary and human toxicology v. 34 (2): p. 134-137; 1992 Apr. Includes references.

Language: English

Descriptors: Fowls; Stress; Pentobarbital; Neurotoxins

345 NAL Call. No.: 41.8 AM3
Salmonella typhimurium abscess as a postoperative complication in a horse with colic.
Blikslager, A.T.; Wilson, D.A.; Taylor, D.S.; MacFadden, K.E.; Fischer, J.R.; Fales, W.H.
Schaumburg, Ill. : The Association; 1991 Dec15.
Journal of the American Veterinary Medical Association v. 199 (12): p. 1757-1759; 1991 Dec15. Includes references.

Language: English

Descriptors: Horses; Colic; Postoperative complications; Abscesses; Salmonella typhimurium; Intramuscular injection; Analgesics; Case reports

346 NAL Call. No.: SF601.A46
Sedation, analgesia, and anesthesia in equine practice.
Short, C.E.
Lexington, Ky. : The Association; 1993.

Proceedings of the annual convention of the American Association of Equine Practitioners. p. 37-49; 1993. Meeting helding on November 29-December 2, 1992, Orlando, Florida. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Drug effects

347 NAL Call. No.: SF951.J65
Sedation and analgesia with Dormosedan (detomidine hydrochloride) or acepromazine for suturing of the vulvar lips in mares (Caslick's surgery). Hamm, D.; Jochle, W.
Lake Elsinore, Calif. : William E. Jones, DVM; 1991 Mar.
Journal of equine veterinary science v. 11 (2): p. 86-88; 1991 Mar. Includes references.

Language: English

Descriptors: Mares; Analgesics; Neuroleptics; Dosage; Vulva; Suture; Anesthesia; Drug effects

348 NAL Call. No.: SF601.A46
Sedation and anesthesia of the mare during obstetric manipulation. LeBlanc, M.M.; Norman, W.M.
Lexington, Ky. : The Association; 1993.
Proceedings of the annual convention of the American Association of Equine Practitioners. p. 619-622; 1993.
Meeting helding on November 29-December 2, 1992, Orlando, Florida. Includes references.

Language: English

Descriptors: Mares; Anesthetics; Dystocia

349 NAL Call. No.: 41.8 V641
Sedation of horses with romifidine and butorphanol.
Browning, A.P.; Collins, J.A.
London : The British Veterinary Association; 1994 Jan22.
The Veterinary record : journal of the British Veterinary Association v. 134 (4): p. 90-91; 1994 Jan22. Includes references.

Language: English

Descriptors: Horses; Analgesics

350 NAL Call. No.: 410.9 P94
Sedative and cardiovascular effects of midazolam in swine.
Smith, A.C.; Zellner, J.L.; Spinale, F.G.; Swindle, M.M.
Cordova, Tenn. : American Association for Laboratory Animal Science; 1991 Apr. Laboratory animal science v. 41 (2): p. 157-161; 1991 Apr. Includes references.

Language: English

Descriptors: Pigs; Benzodiazepines; Dosage effects; Cardiovascular system; Heart rate; Respiration rate

Abstract: The ability to reliably produce sedation in swine is hampered by the paucity of agents available. This project examined the use of a new water soluble benzodiazepine, midazolam, as a sedative in swine. Echocardiographic studies were performed on thirty 23 to 30 kg Yorkshire swine before and 20 minutes after each animal received a single intramuscular dose of 100 micrograms/kg midazolam. Heart rate

and respiratory rate decreased significantly compared to nonsedated values (93 +/- 7 versus 117 +/- 2 bpm and 10 +/- 1 versus 20 +/- 1 breaths/min, respectively [p < 0.05]). However, there was no effect on left ventricular fractional shortening (29.9 > 0.05 versus 29.5 +/- 0.05% [p > 0.05]). An additional five pigs were instrumented for a dose response study in order to collect hemodynamic data and blood gas values at baseline, and 15 min after the intravenous administration of incremental doses of midazolam (100 to 1,000 micrograms/kg). Despite a significant decrease in heart rate and respiratory rate, cardiac output, blood gases, and pH remained within normal ranges at all dosage levels. Both routes of administration produced sedation for 20 min in all animals. Midazolam is an effective swine sedative that is associated with stable cardiac function.

351 NAL Call. No.: SF951.V47
Sedatives, tranquilizers, and stimulants.
Dyke, T.M.
Philadelphia, Pa. : W.B. Saunders; 1993 Dec.
The Veterinary clinics of North America. Equine practice v. 9 (3): p. 621-634; 1993 Dec. In the series analytic: Drug use in performance horses / edited by Kenneth W. Hinchcliff and Richard A. Sams. Includes references.

Language: English

Descriptors: Horses; Neuroleptics; Stimulants; Barbiturates; Benzodiazepines; Chloral hydrate; Agonists

352 NAL Call. No.: SF601.A46
Selected problems in the draft horse.
Goble, D.O.
Manhattan, Kan. : The Association; 1989.
Proceedings of the annual convention of the American Association of Equine Practitioners (34th): p. 607-610; 1989. Meeting held December 4-7, 1988, San Diego, CA.

Language: English

Descriptors: Horses; Draft animals; Feet; Hooves; Anesthesia; Laminitis; Osteochondritis; Horse diseases

353 NAL Call. No.: SF910.P34A55 1992
The sheep as a model for experimental pain studies.
Livingston, A.; Waterman, A.E.; Nolan, A.; Morris, R.; Ley, S.J.; Headley, P.M.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 364-371, 399; 1992. Includes references.

Language: English

Descriptors: Sheep; Pain; Animal experiments; Models; Analgesics; Testing; Morphology; Laboratory tests

354 NAL Call. No.: 41.8 V643
Short latency auditory evoked potentials recorded from non-anaesthetized thoroughbred horses.
Mayhew, I.G.; Washbourne, J.R.
London : Bailliere Tindall; 1992 Jul.
British veterinary journal v. 148 (4): p. 315-327; 1992 Jul. Includes references.

Language: English

Descriptors: Horses; Brain stem; Bioelectric potential; Hearing; Normal values; Recordings

Abstract: The Brainstem Auditory Evoked Potential (BAEP) is a recording of the electrical activity of the brainstem following an acoustic stimulation. Up to seven peaks may be identified within 10 ms, and are labelled I to VII. The first five of these peaks are of most clinical importance, and in normal horses, peaks I, III and V are always present at stimulus intensities of 70-100 dB. Repeated sampling of clinically normal subjects at different stimulus intensities has enabled mean latency values to be determined for the ipsilateral and contralateral peaks I, III and V, and also for the interpeak latencies (IPLs) at each intensity. The maximum, normal, absolute latency for ipsilateral peak I was 1.86 ms, for peak III, 3.53 ms and for peak V, 5.52 ms. The equivalent contralateral values were 2.50 ms, 4.44 ms and 5.59 ms. The maximum, normal, contralateral IPL, for I-III was 1.78 ms, that for III-V was 2.26 ms and for I-V was 3.76 ms. The maximum, normal, contralateral IPLs were 2.17 ms for I-III, 1.41 ms for III-V and 3.32 ms for I-V. If a peak or peaks are absent or delayed, or the IPL is greater than expected, the patient can be determined to have abnormal brainstem or auditory nerve conduction. The amplitudes of peaks I and V were measured, and the ratio of amplitudes was determined, to find the normal V:I values. At a stimulus intensity of 100 dB, the ipsilateral ratio was 0.49+/-0.19, and the contralateral value 1.49+/-0.48. Dispersal values were also calculated, by dividing the height of the III-V complex by its duration. For a stimulus intensity of 100 dB, the ipsilateral dispersal value was 0.416+/-0.104 microvolts/ms, and the contralateral value of 0.473+/-0.074 microvolts/ms. A range of normal values for both V:I ratio and dispersal were calculated. Height, weight and inter-aural distance were measured, and the relationship of the various peaks and IPLs to these variables was ascertained by statistical analysis. For the ipsilateral values, the correlation between

355 NAL Call. No.: QP251.A1T5
A simplified laparoscopy technique for repeated ovarian observation in the water buffalo (Bubalus bubalis).
Ambrose, J.D.; Manik, R.S.; Singla, S.K.; Madan, M.L.
Stoneham, Mass. : Butterworth-Heinemann; 1993 Sep.
Theriogenology v. 40 (3): p. 487-496; 1993 Sep. Includes references.

Language: English

Descriptors: Buffaloes; Laparoscopy; Corpus luteum

Abstract: A simplified technique of laparoscopy was developed for ovarian observation in the riverine buffalo, through a right paralumbar incision. The technique differed from previously described ones in that it involved only a single puncture and required no abdominal insufflation. A Hopkins 0 degree forward viewing endoscope (5.5 mm X 500 mm) in combination with an endoscope sheath having a built-in instrument channel, and a long flexible forceps (630 mm) were used. Of the 23 observation attempts on 13 buffalo, 21 successful observations were conducted. Laparoscopies were performed using a combination of Xylazine, local infiltration and epidural anesthesia in a standing position. Six repeated observations were made within a 21-day period on 1 buffalo, with no postoperative complications. Observation of both left and right ovaries was possible through the same puncture. The technique was useful in buffalo to confirm ovarian structures which could not be determined with certainty through palpation per rectum. Our results suggest that the single puncture laparoscopy technique can be safely used for repeated ovarian

examination in the water buffalo.

356 NAL Call. No.: SF915.J63
Single-dose pharmacokinetics of detomidine in the horse and cow. Salonen, J.S.; Vaha-Vahe, T.; Vainio, O.; Vakkuri, O.
Oxford : Blackwell Scientific Publications; 1989 Mar.
Journal of veterinary pharmacology and therapeutics v. 12 (1): p. 65-72; 1989 Mar. Includes references.

Language: English

Descriptors: Horses; Cows; Analgesics; Dosage effect; Pharmacokinetics; Radioimmunoassay

357 NAL Call. No.: 41.8 M69
Small intestinal diseases of horses: diagnosis and surgical intervention. Mueller, P.O.E.; Parks, A.H.; Baxter, G.M.
Lenexa, Kan. : Veterinary Medicine Publishing Co; 1992 Oct.
Veterinary medicine v. 87 (10): p. 1030-1036; 1992 Oct.
Includes references.

Language: English

Descriptors: Horses; Intestinal diseases; Small intestine; Diagnosis; Surgery; Symptoms; Physiopathology; Abdomen; Pain

358 NAL Call. No.: SF951.E62
Standing castration of the llama using butorphanol tartrate and local anesthesia.
Barrington, G.M.; Meyer, T.F.; Parish, S.M.
Santa Barbara, Calif. : Veterinary Practice Publishing Company; 1993 May. Equine practice v. 15 (5): p. 35-39; 1993 May. Includes references.

Language: English

Descriptors: Llamas; Castration; Local anesthesia

359 NAL Call. No.: SF601.I4
Standing chemical restraint in the horse.
Munroe, G.; Young, L.
London : British Veterinary Association; 1991 Jul.
In practice v. 13 (4): p. 163-166; 1991 Jul. Includes references.

Language: English

Descriptors: Horses; Anesthesia

360 NAL Call. No.: 41.8 AM3A
Steady-state response characteristics of a pulse oximeter on equine intestine. Schmotzer, W.B.; Riebold, T.W.; Rowe, K.E.; Scott, E.A.
Schaumburg, Ill. : American Veterinary Medical Association; 1991 Apr. American journal of veterinary research v. 52 (4): p. 619-626; 1991 Apr. Literature review. Includes references.

Language: English

Descriptors: Horses; Intestines; Viability; Oxygen; Saturation; Blood flow; Instruments; Hemoglobin; Absorption

Abstract: The steady-state response characteristics of a pulse oximeter were evaluated on intestinal segments of seven clinically normal halothane-anesthetized horses. Arterial

oxygen tension > 200 mm of Hg, end tidal carbon dioxide from 30 to 35 mm of Hg, and systemic mean arterial pressure > 70 mm of Hg were maintained throughout the recording periods. Values for percentage of pulse oximeter oxygen saturation, pulsatile blood flow, and percentage of signal strength were recorded from jejunum, ileum, cecum, left ventral colon, left dorsal colon, and descending colon. Probe placement on intestinal segments was recorded as over or not over visible subserosal or transmural vessels. There was no significant difference between median values on the basis of vessel codes for pulse oximeter oxygen saturations, pulsatile flow, and signal strength. Median values recorded for pulse oximeter oxygen saturation were 93% from jejunum and ileum and 95% from cecum, left ventral colon, left dorsal colon, and descending colon; median values for pulsatile flow were 576 from jejunum, 560 from ileum, 560 from cecum, 574 from left ventral colon, 578 from left dorsal colon, and 560 from descending colon; median values for signal strength were 50% from jejunum, 67.5% from ileum, 60% from cecum, 75% from left ventral colon, 50% from left dorsal colon, and 52.5% from descending colon. Median values obtained from each anatomic location were not significantly different for pulsatile flow or signal strength. Median pulse oximetry oxygen values recorded from jejunum and ileum were significantly lower than values obtained from other intestinal segments. When calculated arterial oxygen saturation was compared with oxygen saturation determined by the pulse oximeter, pulse oximeter oxygen saturation was consistently lower by 6.7% (jejunum and ileum) and 4.7% (cecum, left ventral colon, left dorsal colon, and descending colon). Equine and human absorption spectra were generated and compared for reduced hemog

361 NAL Call. No.: QP1.P4
Stereotypic behavior, endogenous opioids, and postfeeding hypoalgesia in pigs. Rushen, J.; Passille, A.M.B. de; Schouten, W.
Elmsford, N.Y. : Pergamon Press; 1990 Jul.
Physiology & behavior v. 48 (1): p. 91-96; 1990 Jul. Includes references.

Language: English

Descriptors: Pigs; Tethering; Animal behavior; Feeding; Pain; Stress; Naloxone

Abstract: Tethered sows, some of which performed marked behavioral stereotypies after feeding, were injected IM with 1 mg/kg of naloxone 30 min before feeding (with 2 saline control days). Tail-flick latencies on a pain-sensitivity test were recorded before and after feeding. On control days, tail-flick latencies after feeding were longer than those before feeding, and this effect was abolished by naloxone pretreatment. Thus, there is an opioid-based hypoalgesia after feeding. However, sows with marked behavioral stereotypies had shorter tail-flick latencies after feeding. Thus, we have no evidence that performance of behavioral stereotypies results in increased opioid activity. Naloxone reduced the time spent in behavioral stereotypies by approximately 30% but this may be due to a reduction in time spent active. Naloxone increased the frequency and reduced the mean duration of bouts of chain manipulating, operating the drinker and rooting. We suggest that endogenous opioids are involved in the positive feedback that maintains the persistence of behavior and inhibits switching between different activities.

362 NAL Call. No.: SF955.E6
The stress response to anaesthesia in ponies: barbiturate anaesthesia. Taylor, P.M.

Newmarket : R & W Publications; 1990 Sep.
Equine veterinary journal v. 22 (5): p. 307-312; 1990 Sep.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Stress response; Respiratory system; Barbiturates; Thiopental; Pentobarbital

363 NAL Call. No.: SF910.P34A55 1992
Stress responses to anesthesia in horses.
Taylor, P.M.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 322-325, 358-359; 1992. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Drug effects; Stress

364 NAL Call. No.: SF951.V47
Supportive therapy in the anesthetized horse.
Daunt, D.A.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 557-574; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Therapy; Equipment; Respiratory system; Fluid therapy; Cardiovascular system; Sodium bicarbonate; Hypotension; Sympathomimetics; Norepinephrine; Ephedrine; Dopamine; Isoprenaline; Calcium

365 NAL Call. No.: SF601.C66
Surgical correction of impaction of the proventriculus in ostriches. Gamble, K.C.; Honnas, C.M.
Trenton, N.J. : Veterinary Learning Systems Company; 1993 Feb.
The Compendium on continuing education for the practicing veterinarian v. 15 (2): p. 235-245; 1993 Feb. Includes references.

Language: English

Descriptors: Ostriches; Proventriculus; Surgical operations; Anesthesia

366 NAL Call. No.: 41.8 Am3
Suspected malignant hypertermia syndrome in a miniature pot-bellied pig anesthetized with isoflurane.
Claxton-Gill, M.S.; Cornick-Seahorn, J.L.; Gamboa, J.C.; Boatright, B.S. Schaumburg, Ill. : The Association; 1993 Nov15.
Journal of the American Veterinary Medical Association v. 203 (10): p. 1434-1436; 1993 Nov15. Includes references.

Language: English

Descriptors: Miniature pigs; Anesthesia; Inhaled anesthetics; Complications; Hyperthermia; Case reports

367 NAL Call. No.: 49 J82
Teaching standard agricultural practices that are known to be painful. McGlone, J.J.; Hicks, T.A.
Champaign, Ill. : American Society of Animal Science; 1993

Apr. Journal of animal science v. 71 (4): p. 1071-1074; 1993 Apr. Includes references.

Language: English

Descriptors: Animal welfare; Teaching; Pain; Stress; Castration

Abstract: Animal science faculty teach, demonstrate, and ask students to perform procedures that are known to be painful. Potentially painful procedures include castration, branding, dehorning, ear notching, teeth clipping, beak trimming, comb and wattle removal, and tail docking. In each case, the degree of pain experienced by an animal is generally not known. Furthermore, the consequences of animals having to endure pain are also not fully understood. A survey was conducted of animal science faculty to identify current departmental policies and practices related to castration in beef and swine production classes. Departments vary in what they require of students. Departments should set a policy to address 1) which (and how) potentially painful procedures are taught and 2) how the faculty deal with students who refuse to participate in putatively painful procedures. The institutional animal care and use committee should approve potentially painful teaching procedures after instructor and department have concluded that teaching such procedures is essential to a complete educational experience.

368 NAL Call. No.: 410.9 P94
A technique for liver biopsy performed in Pekin ducks using anesthesia with Telazol.
Carp, N.Z.; Saputelli, J.; Halbherr, T.C.; Mason, W.S.; Jilbert, A.R. Cordova, Tenn. : American Association for Laboratory Animal Science; 1991 Oct. Laboratory animal science v. 41 (5): p. 474-475; 1991 Oct. Includes references.

Language: English

Descriptors: Ducks; Liver; Biopsy; Anesthesia; Lidocaine; Injectable anesthetics; Safety; Duck hepatitis virus

Abstract: Infection of Pekin ducks with duck hepatitis B virus is a useful model for studying the hepadenoviruses, of which human hepatitis B virus is the prototype. The utility of this model has been limited, however, by the difficulties associated with anesthetizing and obtaining liver biopsies from ducks. We developed a technique using Telazol, (13 mg/kg) to anesthetize ducks before surgical biopsy of the liver in ducks infected with duck hepatitis B virus. Eight Pekin ducks infected with duck hepatitis B virus underwent serial biopsies at 4- to 5-week intervals. There was one perioperative death in 34 surgical procedures with no evidence on intra-abdominal sepsis or wound complications. Telazol can be used safely and humanely to anesthetize ducks without the need for general endotracheal anesthesia.

369 NAL Call. No.: 41.8 C81
Telazol and xylazine anesthesia in sheep.
Lin, H.C.; Tyler, J.W.; Wallace, S.S.; Thurmon, J.C.; Wolfe, D.F. Ithaca, N.Y. : Cornell Veterinarian, Inc; 1993 Apr. Cornell veterinarian v. 83 (2): p. 117-124; 1993 Apr. Includes references.

Language: English

Descriptors: Sheep; Anesthesia

370 NAL Call. No.: 41.8 V641
Temporary bilateral laryngeal paralysis in a horse associated with general anaesthesia and post anaesthetic myositis.
Dixon, P.M.; Railton, D.I.; McGorum, B.C.
London : The Association; 1993 Jan09.
The Veterinary record : journal of the British Veterinary Association v. 132 (2): p. 29-32; 1993 Jan09. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Adverse effects

371 NAL Call. No.: QP1.C6
Thyroid regulation of body temperature in anaesthetized chickens. Lam, S.K.; Harvey, S.
Oxford : Pergamon Press; 1990.
Comparative biochemistry and physiology : A : Comparative physiology v. 95 (3): p. 435-439; 1990. Includes references.

Language: English

Descriptors: Chickens; Anesthesia; Thyroid function; Body temperature; Blood plasma; Triiodothyronine; Thyroxine; Somatostatin

372 NAL Call. No.: 41.8 SO8
Tiletamine hydrochloride in combination with zolazepam hydrochloride as an anaesthetic agent in sheep.
Taylor, J.H.; Botha, C.J.; Swan, G.E.; Mulders, M.S.G.; Grobler, M.J. Pretoria : The Association; 1992 Jun.
Journal of the South African Veterinary Association v. 63 (2): p. 63-65; 1992 Jun. Includes references.

Language: English

Descriptors: Sheep; Anesthesia; Anesthetics; Drug formulations; Dosage; Atropine; Preanesthetic medication; Blood pressure; Heart rate

373 NAL Call. No.: QP1.C6
Tissue blood content in anaesthetised sheep and horses.
Weaver, B.M.Q.; Staddon, G.E.; Pearson, M.R.B.
Oxford : Pergamon Press; 1989.
Comparative biochemistry and physiology : A : Comparative physiology v. 94 (3): p. 401-404. ill; 1989. Includes references.

Language: English

Descriptors: Sheep; Horses; Tissues; Anesthesia; Erythrocytes; Blood volume

374 NAL Call. No.: QP1.C6
Tissue perfusion in anaesthetised sheep.
Weaver, B.M.Q.; Staddon, G.E.; Pearson, M.R.B.
Oxford : Pergamon Press; 1990.
Comparative biochemistry and physiology : A : Comparative physiology v. 95 (3): p. 359-361; 1990. Includes references.

Language: English

Descriptors: Sheep; Anesthesia; Tissue analysis; Radioactivity; Heart output; Blood flow

375 NAL Call. No.: SF955.E6
A tracheal tube-in-tube technique for functional separation of the lungs in the horse.
Moens, Y.; Gootjes, P.; Lagerweij, E.
Newmarket : R & W Publications; 1992 Mar.
Equine veterinary journal v. 24 (2): p. 103-106; 1992 Mar.
Includes references.

Language: English

Descriptors: Horses; Lungs; Anesthesia; Trachea; Tubes; Bronchi; Fiber optics

376 NAL Call. No.: 49 J82
Transport of pigs different with respect to the halothane gene: stress assessment.
Geers, R. \u Catholic University, Leuven, Heverlee, Belgium; Bleus, E.; Schie, T. van; Gerard, H.; Janssens, S.; Nackaerts, G.; Decuypere, E.; Jourquin, J. Champaign, Ill. : American Society of Animal Science; 1994 Oct. Journal of animal science v. 72 (10): p. 2552-2558; 1994 Oct. Includes references.

Language: English

Descriptors: Pigs; Transport of animals; Halothane susceptibility; Heart rate; Body temperature; Hydrocortisone; Endorphins; Fasting; Genotypes; Stress; Animal welfare

Abstract: Two transport experiments were carried out with 18 pigs each. These pigs originated from three genetic lines (homozygous halothane-positive and -negative and heterozygotes). Half the pigs were unfed for 12 h before transport. All pigs were transported twice for 2 h. Before and after transport pigs were anesthetized to take blood samples from the jugular vein and biopsies from the biceps femoris. At the same time equipment to measure body temperature and heart rate were attached or detached. Plasma cortisol and beta-endorphin concentrations were measured as well as the glycogen concentration in the muscle sample. Line differences were detected with respect to body temperature ($P < .04$)7 heart rate ($P < .05$), and cortisol ($P < .01$). The withholding of feed influenced ($P < .04$) plasma beta-endorphin concentration. Body temperature ($P < .02$), heart rate ($P < .001$), cortisol ($P < .01$), and beta-endorphin ($P < .001$) were different before and after transport, whereas a training effect of the transport number was observed for heart rate ($P < .07$) and plasma beta-endorphin ($P < .02$). No interactions between treatments were observed. The relationship between cortisol and beta-endorphin suggests a nonconcomitant release of ACTH and beta-endorphin.

377 NAL Call. No.: SF911.V43
An unusual cause of increasing airway pressure during anesthesia. Klein, L.V.; Wilson, D.V.
Philadelphia, Pa. : J.B. Lippincott Company; 1989 May.
Veterinary surgery v. 18 (3): p. 239-241. ill; 1989 May.
Includes references.

Language: English

Descriptors: Mares; Anesthesia; Halothane; Defects; Partial pressure

378 NAL Call. No.: SF955.E6
Urticarial response during anesthesia in a horse.
Matthews, N.S.; Light, G.S.; Sanders, E.A.; Hartsfield, S.M.; Hustead, D.R. Newmarket : R & W Publications; 1993 Nov.

Equine veterinary journal v. 25 (6): p. 555-556; 1993 Nov.
Includes references.

Language: English

Descriptors: Horses; Anesthesia; Urticaria; Guaifenesin

379 NAL Call. No.: SF910.P34A55 1992
Use of acupuncture for the control of chronic pain and for surgical analgesia. Klide, A.M.
New York : Churchill Livingstone; 1992.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 249-257; 1992. Includes references.

Language: English

Descriptors: Animals; Horses; Pain; Laminitis; Surgical operations; Analgesics; Treatment; Acupuncture

380 NAL Call. No.: 41.8 V6456
The use of detomidine as a premedicant and sedative in horses. Jones, R.S.
London : Wright; 1989.
The Veterinary annual (29): p. 175-177; 1989. Includes references.

Language: English

Descriptors: Horses; Preanesthetic medication; Agonists; Neuroleptics; Analgesics; Anesthesia; Pharmacokinetics; Dosage; Adverse effects

381 NAL Call. No.: 41.8 AM3A
Use of end-tidal CO2 tension to predict arterial CO2 values in isoflurane-anesthetized equine neonates.
Geiser, D.R.; Rohrbach, B.W.
Schaumburg, Ill. : American Veterinary Medical Association; 1992 Sep. American journal of veterinary research v. 53 (9): p. 1617-1621; 1992 Sep. Includes references.

Language: English

Descriptors: Horses; Newborn animals; Carbon dioxide; Blood; Anesthesia; Inhaled anesthetics; Lung ventilation

382 NAL Call. No.: 41.8 R3224
Use of epidural morphine to relieve pain in a horse.
Valverde, A.; Little, C.B.; Dyson, D.H.; Motter, C.H.
Ottawa : Canadian Veterinary Medical Association; 1990 Mar.
The Canadian veterinary journal v. 31 (3): p. 211-212; 1990 Mar. Includes references.

Language: English

Descriptors: Horses; Pain; Conduction anesthesia; Morphine; Case reports

383 NAL Call. No.: SF951.V47
Use of halothane and isoflurane in the horse.
Brunson, D.B.
Philadelphia, Pa. : W.B. Saunders; 1990 Dec.
The Veterinary clinics of North America : equine practice v. 6 (3): p. 529-541; 1990 Dec. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Halothane; Nitrous oxide; Inhaled anesthetics; Respiratory system; Cardiovascular system

384 NAL Call. No.: SF601.J62
Use of inhalation anesthesia to facilitate surgical training on swine farms. Riebold, T.W.; Ferries, J.V.; Crisman, R.O.
Blacksburg, Va. : The Association of American Veterinary Medical Colleges; 1989.
Journal of veterinary medical education v. 16 (2): p. 50-52. ill; 1989. Includes references.

Language: English

Descriptors: Pigs; Veterinary education; Surgical operations; Anesthesia; Apparatus; Halothane; Hyperthermia

385 NAL Call. No.: SF951.J65
The use of tiletamine-zolazepam for "darting" feral horses. Matthews, N.S.; Myers, M.M.
Lake Elsinore, Calif. : William E. Jones, DVM; 1993 May.
Journal of equine veterinary science v. 13 (5): p. 264-267; 1993 May. Proceedings of the First International Conference on Equine Rescue, February 6-7, 1993, Santa Barbara, California. Includes references.

Language: English

Descriptors: North Carolina; Horses; Feral herds; Anesthesia; Restraint of animals

386 NAL Call. No.: 41.8 M69
Using injectable anesthetic drugs safely in horses. Matthews, N.S.; Hartsfield, S.M.
Lenexa, Kan. : Veterinary Medicine Publishing Co; 1993 Feb.
Veterinary medicine v. 88 (2): p. 154-159; 1993 Feb. Includes references.

Language: English

Descriptors: Horses; Injectable anesthetics; Anesthesia; Preoperative care; Safety

387 NAL Call. No.: 41.8 M69
Using perineural anesthesia to localize equine lameness. Gibson, K.T.; Stashak, T.S.
Lenexa, Kan. : Veterinary Medicine Publishing Company; 1989 Nov. Veterinary medicine v. 84 (11): p. 1082, 1084-1086; 1989 Nov. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Legs; Lameness; Diagnostic techniques

388 NAL Call. No.: 41.8 M69
Using Telazol-ketamine-xylazine anesthesia for castration of cryptorchid pigs. Ko, J.C.H.; Thurmon, J.C.; Benson, G.J.; Tranquilli, W.J. Lenexa, Kan. : Veterinary Medicine Publishing Co; 1994 Oct. Veterinary medicine v. 89 (10): p. 999-1002; 1994 Oct. Includes references.

Language: English

Descriptors: Pigs; Cryptorchidism; Castration; Anesthesia;

Injectable anesthetics; Ketamine; Xylazine; Drug combinations; Adverse effects

389 NAL Call. No.: 41.8 V641
Variation in the analgesic effects of xylazine in different breeds of sheep. Ley, S.; Waterman, A.; Livingston, A.
London : The Association; 1990 May19.
The Veterinary record : journal of the British Veterinary Association v. 126 (20): p. 508; 1990 May19. Includes references.

Language: English

Descriptors: Sheep; Xylazine; Breed differences; Clun forest; Swaledale; Welsh mountain; Drug effects

390 NAL Call. No.: DISS F1992212
Ventilation and gas exchange in each lung of the anaesthetised horse the influence of body position and mechanical ventilation = Ventilatie en gasuitwisseling in iedere long bij het geanaestheseerde paarde : invloed van de lichaamspositie en van mechanische beademing.. Ventilatie en gasuitwisseling in iedere long bij het geanaestheseerde paarde, invloed van de lichaamspositie en van mechanische beademing
Moens, Y.
Utrecht? : s.n.,; 1992.
203 p. : ill. ; 24 cm. Thesis statement, summary, afterword, and vita in Dutch. Includes bibliographical references.

Language: English

391 NAL Call. No.: SF955.E6
Ventilation-perfusion relationships in the anaesthetised horse. Nyman, G.; Hedenstierna, G.
Newmarket : R & W Publications; 1989 Jul.
Equine veterinary journal v. 21 (4): p. 274-281; 1989 Jul. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Ventilation; Statistical analysis

392 NAL Call. No.: 41.2 H198 1989 [no.60]
Versuche zur Entwicklung einer intramuskularen Injektionsananthesie beim Schwein mit Kombinationen von Phenothiazinen, Phencyclidinien, Benzodiazepinen, Imidazolidinderivaten und morphinahnlichen Analgetika [Trials to develop an intramuscular injectable anesthesia with combinations of phenothiazines, phencyclidines, benzodiazephines, imadazolidine derivatives and morphine-like analgesics in swine].
Ruppert, Konstanze
Hannover : [s.n.],; 1989.
175 p. : ill. ; 21 cm. English summary. Includes bibliographical references (p.163-175).

Language: German

393 NAL Call. No.: SF910.P34A55 1992
Visceral and peripheral pain detection models in the horse, using flunixin and carprofen.
Schatzmann, U.; Gugelmann, M.; Cranach, J. von; Ludwig, B.M.; Rehm, W.F.; Baumgartner, T.; Stauffer, J.L.
New York : Churchill Livingstone; 1992.

Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 411-420, 432-433; 1992. Includes references.

Language: English

Descriptors: Horses; Pain; Detection; Models; Antiinflammatory agents; Flunixin; Testing; Balloons; Pharmacokinetics; Analgesics

394 NAL Call. No.: SF951.E62
Waste anesthetic gases in the operating room.
Greene, S.; Keegan, R.
Santa Barbara, Calif. : Veterinary Practice Publishing Company; 1989 Oct. Equine practice v. 11 (9): p. 25-28. ill; 1989 Oct. Includes references.

Language: English

Descriptors: Horses; Anesthetics; Wastes; Health protection; Health hazards; Veterinarians; Abortion; Leakage

395 NAL Call. No.: SF601.I4
Welfare aspects of castration and tail docking of lambs.
Wood, G.; Molony, V.
London : British Veterinary Association; 1992 Jan.
In practice v. 14 (1): p. 2-4, 6-7; 1992 Jan. Includes references.

Language: English

Descriptors: Uk; Lambs; Castration; Docking; Vasoconstriction; Infections; Pain; Local anesthesia; Blood plasma; Animal welfare; Complications; Veterinary equipment; Animal behavior; Hydrocortisone

396 NAL Call. No.: S13.A53 nr.76
Wymiana gazowa i hemodynamika koni znieczulanych halotanem z oddechem spontaniczym i kontrolowanym = Gas exchange and hemodynamics of halothane anesthetized horses with spontaneous and controlled ventilation.. Gas exchange and hemodynamics of halothane anesthetized horses with spontaneous and controlled ventilation
Ratajczak, Kornel
Wroclaw : Wydawn. Akademii Rolniczej we Wroclawiu, Katedra i Klinika Chirurgii,; 1989.
69 p. : ill. ; 24 cm. (Zeszyty naukowe Akademii Rolniczej we Wroclawiu. Rozprawy, nr. 76). Summary and subcaptions in English. Includes bibliographical references (p. 63-68).

Language: Polish

397 NAL Call. No.: 41.8 AM3A
Xylazine and tiletamine-zolazepam anesthesia in horses.
Hubbell, J.A.E.; Bednarski, R.M.; Muir, W.W.
Schaumburg, Ill. : American Veterinary Medical Association; 1989 May. American journal of veterinary research v. 50 (5): p. 737-742; 1989 May. Includes references.

Language: English

Descriptors: Horses; Xylazine; Anesthetics; Anesthesia; Cardiovascular system; Respiratory system

Abstract: The cardiopulmonary and anesthetic effects of xylazine in combination with a 1:1 mixture of tiletamine and zolazepam were determined in 6 horses. Each horse was given

xylazine IV or IM, as well as tiletamine-zolazepam IV on 4 randomized occasions. Anesthetics were administered at the rate of 1.1 mg of xylazine/kg of body weight, IV, 1.1 mg of tiletamine-zolazepam/kg, IV (treatment 1); 1.1 mg of xylazine/kg, IV, 1.65 mg of tiletamine-zolazepam/kg, IV (treatment 2); 1.1 mg of xylazine/kg, IV, 2.2 mg of tiletamine-zolazepam/kg, IV (treatment 3); and 2.2 mg of xylazine/kg, IM, 1.65 mg of tiletamine-zolazepam/kg, IV (treatment 4). Tiletamine-zolazepam doses were the sum of tiletamine plus zolazepam. Xylazine, when given IV, was given 5 minutes before tiletamine-zolazepam. Xylazine, when given IM, was given 10 minutes before tiletamine-zolazepam. Tiletamine-zolazepam induced recumbency in all horses. Duration of recumbency in group 1 was 31.9 +/- 7.2 (mean +/- 1 SD) minutes. Increasing the dosage of tiletamine-zolazepam (treatments 2 and 3) significantly (P less than 0.05) increased the duration of recumbency. Xylazine caused significant (P less than 0.05) decreases in heart rate and cardiac output and significant (P less than 0.05) increases in central venous pressure and mean pulmonary artery pressure 5 minutes after administration. Respiratory rate was decreased. Arterial blood pressures increased significantly (P less than 0.05) after xylazine was administered IV in treatments 1 and 3, but the increases were not significant in treatment 2. Xylazine administered IM caused significant (P less than 0.05) increases in central venous pressure and significant (P less than 0.05) decreases in cardiac output. Tiletamine-zolazepam administration caused significant (P less than 0.05) decreases in arterial partial pressure of oxygen and arterial pH and significant (P less than 0.05) increases in arterial partial pressure of carbon dioxide. These changes persisted for the durati

398 NAL Call. No.: SF955.E6
Xylazine and tiletamine-zolazepam for induction of anaesthesia maintained with halothane in 19 horses.
Abrahamsen, E.J.; Hubbell, J.A.E.; Bednarski, R.M.; Muir, W.W.; Macioce, B.A. Newmarket : R & W Publications; 1991 May. Equine veterinary journal v. 23 (3): p. 224-225; 1991 May. Includes references.

Language: English

Descriptors: Horses; Anesthesia; Xylazine; Halothane; Blood pressure

399 NAL Call. No.: 41.8 R3224
Xylazine epidural analgesia for cesarean section in cattle.
Caulkett, N.; Cribb, P.H.; Duke, T.
Ottawa : Canadian Veterinary Medical Association, c1978-; 1993 Nov. The Canadian veterinary journal; La revue veterinaire canadienne v. 34 (11): p. 674-676; 1993 Nov. Includes references.

Language: English

Descriptors: Cattle; Caesarean section; Xylazine

400 NAL Call. No.: SF601.C66
Xylazine hydrochloride epidural analgesia: a method of providing sedation and analgesia to facilitate castration of mature bulls.
Caulkett, N.A.; Macdonald, D.G.; Janzen, E.D.; Cribb, P.N.; Fretz, P.B. Trenton, N.J. : Veterinary Learning Systems Company; 1993 Aug. The Compendium on continuing education for the practicing veterinarian v. 15 (8): p. 1155-1159; 1993 Aug. Includes references.

Language: English

Descriptors: Bulls; Pain; Analgesics; Conduction anesthesia

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