Paraparesi e Tetraparesi nel gatto anziano

associazione italiana veterinari patologia felina
aivpafe

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Le malattie spinali nel gatto

J Vet Intern Med. 2004 Nov-Dec;18(6):851-8.

Prevalence of diseases of the spinal cord of cats.

Marioni-Henry K[1], Vite CH, Newton AL, Van Winkle TJ.

⊕ **Author information**

Abstract

A retrospective review of records of 205 cats with histologically confirmed disease of the spinal cord was performed to identify the prevalence of disease in this nonrandomly selected population of cats. Clinical records were reviewed, and age, duration of neurologic illness, and clinical and histopathologic findings in cats with spinal cord disease were abstracted. Disease processes were classified into 7 categories and 23 groups. The most common diseases affecting the spinal cord of cats were feline infectious peritonitis (FIP), lymphosarcoma (LSA), and neoplasia of the vertebral column secondarily affecting the spinal cord. Information on age, onset and duration of clinical signs, and lesion localization at the postmortem examination in cats belonging to the 7 categories of disease were analyzed to create a practical list of differential diagnoses. Cats were also subcategorized into 3 groups based on their age at death. FIP was the most common disease of cats younger than 2 years of age. LSA and vertebral column neoplasia were the most common diseases affecting cats between 2 and 8 years of age. Vertebral column neoplasia was the most common disease affecting cats older than 8 years of age. Results of this histopathologic study showed that FIP and LSA were the most common disease processes affecting the spinal cord of cats. However, at least 21 other groups of diseases and their relative prevalence were identified.

Infiammatorie 32%, Neoplastiche 27%, Traumatiche 14%

Congenite 11%, Vascolari 9%, Degenerative 6% …metaboliche 1%

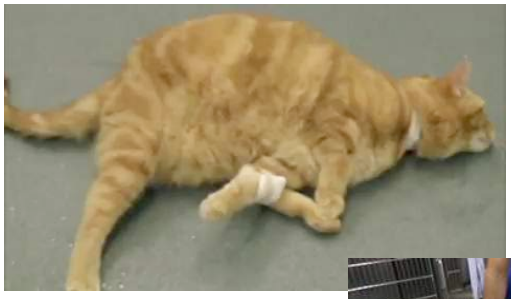
Le malattie spinali nel gatto

La Realtà
nella pratica clinica?

Cosa “vediamo”?
..e con che incidenza?

Le malattie spinali nel gatto

Le malattie spinali nel gatto



Le malattie spinali nel gatto

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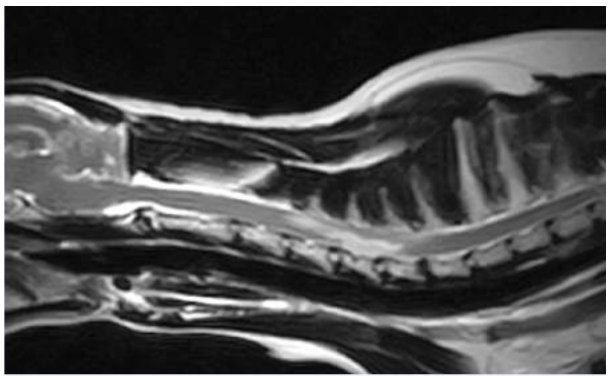
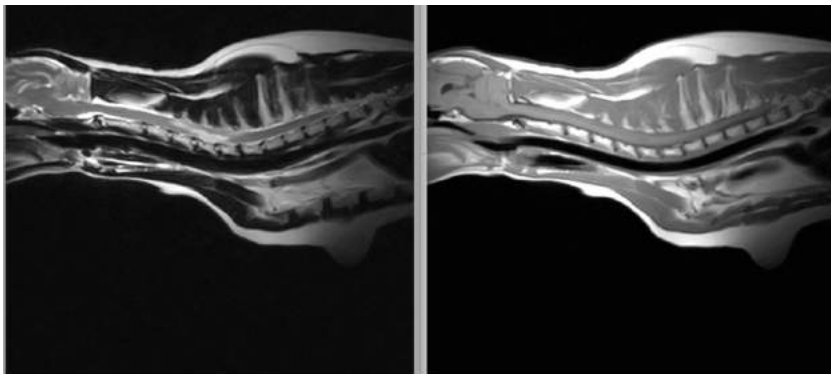
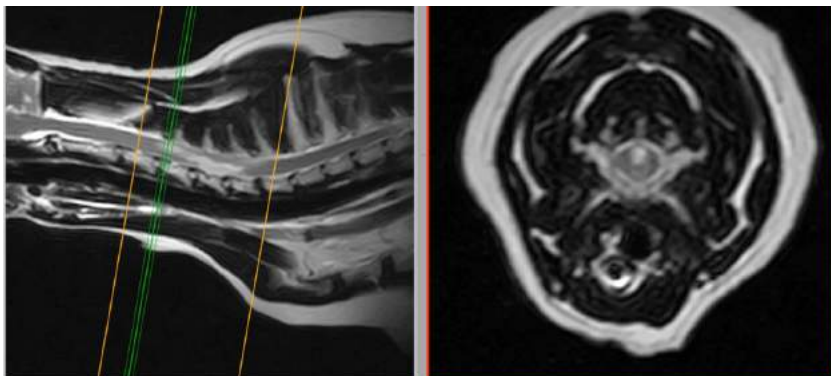


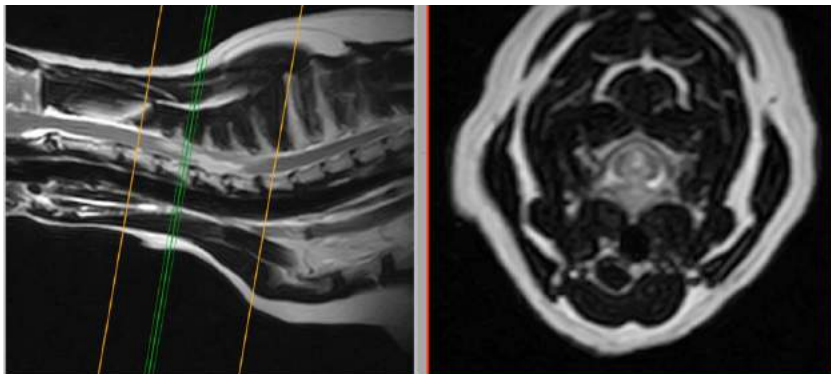
Le malattie spinali nel gatto



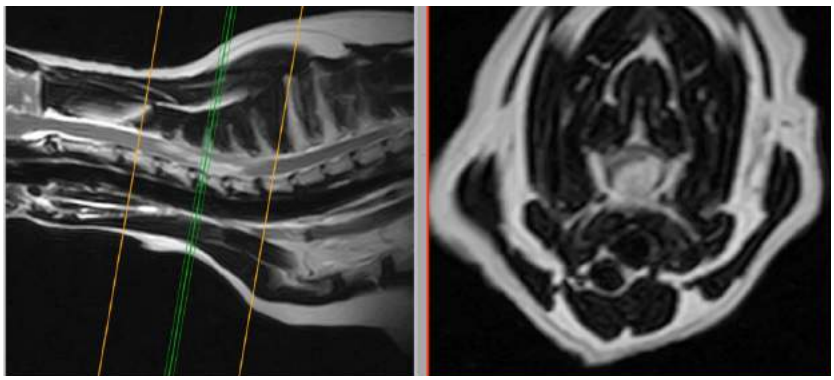
Le malattie spinali nel gatto



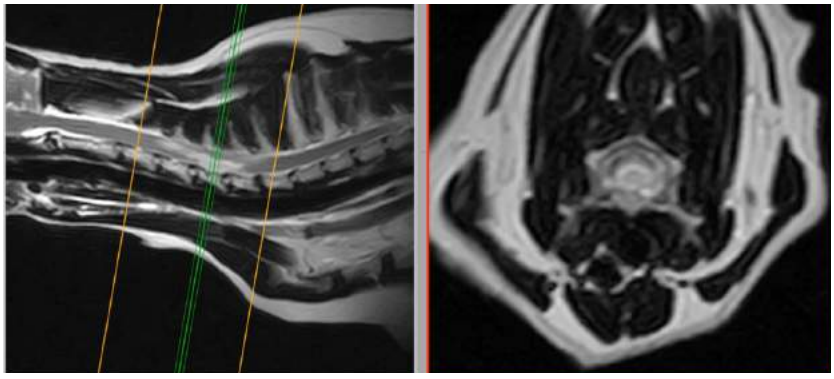
Le malattie spinali nel gatto



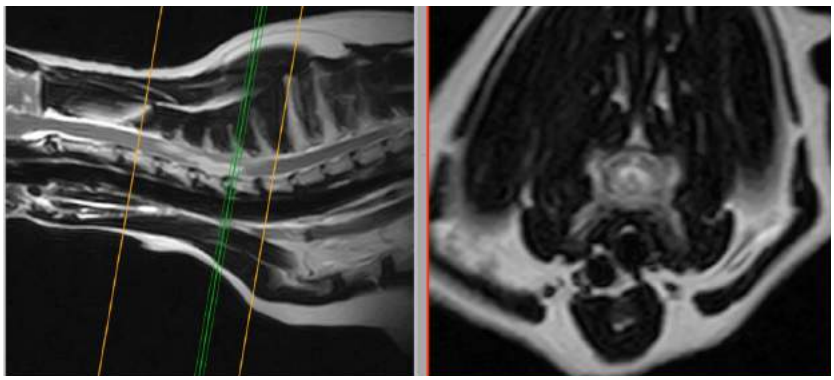
Le malattie spinali nel gatto



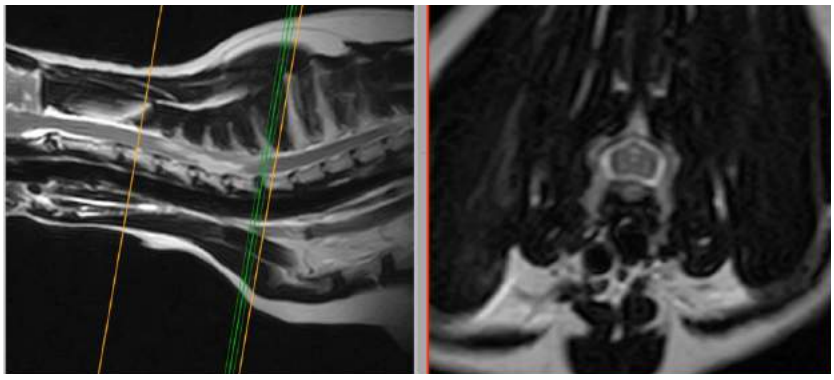
Le malattie spinali nel gatto



Le malattie spinali nel gatto



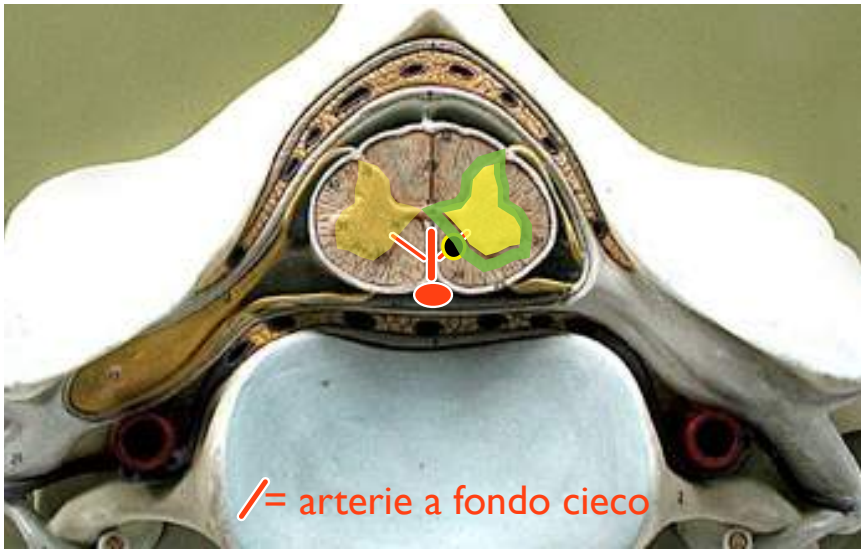
Le malattie spinali nel gatto



Mielopatia Ischemica

Mielopatia Ischemica

Embolia fibrocartilaginea



Mielopatia Ischemica

Insorgenza acuta/iperacuta

Segni Midollari (paresi, atassia)

Asimmetrici

Non dolenti e Non progressivi

Mielopatia Ischemica

Uomo

Can

Mai

GATTO

Tacchino, Macaco, Tigre…

Mielopatia Ischemica Gatto

Bischel, P., Vandevelde, M. and Lang, J. 1984. L'infarctusde la moelle epiniere a la suite d'embolies fibrocartilagineuses chez le chien et la chat. *Schweiz. Arc. Tierheilkd.* **126**: 387–397 (in French).

Turner, P. V., Percy, D. H. and Allyson, K. 1995. Fibrocartilaginous embolic myelopathy in a cat. *Can. Vet. J.* **36**: 712–713.

Scotte, H. W. and O'Leary, M. T. 1996. Fibrocartilaginous embolism in a cat. *J. Small Anim. Pract.* **37**: 228–231.

Abramson, C. J., Platt, S. R. and Stedman, N. L. 2002. Tetraparesis in a cat with fibrocartilaginous emboli. *J. Am. Anim. Hosp. Assoc.* **38**: 153–156.

Coradini, M., Johnstone, I., Filippich, L. J. and Armit, S. 2005. Suspected fibrocartilaginous embolism in a cat. *Aust. Vet. J.* **83**: 550–551.

MacKey, A. D., Rusbridge, C., Sparkes, A. H. and Platt, S. R. 2005. MRI characteristics of suspected acute spinal cord infarction in two cats, and a review of the literature. *J. Feline Med. Surg.* **7**: 101–107.

Mikszewski, J. S., Van Winkle, T. J. and Troxel, M. T. 2006. Fibrocartilaginous embolic myelopathy in five cats. *J. Am. Anim. Hosp. Assoc.* **42**: 226–233.

Mitsuda, M., Yoshioka, H., Akagi, Y., Mashita, T. and Uchida, K. 2007. Suspected fibrocartilaginous embolism in a cat with spinal infarction. *J. Anim. Clin. Med.* **16**: 115–118 (in Japanese with English summary).

Mielopatia Ischemica Gatto

J Vet Med Sci. 2010 Dec;72(12):1657-60. Epub 2010 Aug 11.

Clinical outcomes of suspected ischemic myelopathy in cats.

Nakamoto Y[1], Ozawa T, Mashita T, Mitsuda M, Katakabe K, Nakaichi M.

⊕ Author information

Abstract

Ischemic myelopathy is a disorder of acute onset that is characterized by nonprogressive paresis/plegia. Magnetic resonance imaging (MRI) is particularly helpful in supporting the antemortem diagnosis of ischemic myelopathy. Cats, which were suspected to have ischemic myelopathy between 2005 and 2008, were reviewed retrospectively. The acute onset of nonprogressive and nonpainful myelopathy, the conduct of spine MRI, and the availability of complete medical records were included in the inclusion criteria. The presumptive diagnosis was based on medical history as well as clinical, cerebrospinal fluid, and MRI findings. Six cats met the inclusion criteria based on medical records that had been made for about 3 years, and had relatively good prognoses. The less number of patients with ischemic myelopathy has been reported in cats than in dogs. However, the number of cats with ischemic myelopathy in clinical settings appears to be greater than previously considered.

Mielopatia Ischemica Gatto

J Feline Med Surg. 2013 Feb;15(2):132-41. doi: 10.1177/1098612X12463927. Epub 2012 Oct 9.

Clinical outcome in 19 cats with clinical and magnetic resonance imaging diagnosis of ischaemic myelopathy (2000-2011).

Theobald A[1], Volk HA, Dennis R, Berlato D, De Risio L.

⊕ Author information

Abstract

Previous publications on ischaemic myelopathy in cats are limited to single case reports and small case series. The overall prognosis appears poor, with 42% of cats being euthanased. In this study the clinical outcome of 19 cats with a presumptive diagnosis of ischaemic myelopathy [based on clinical and magnetic resonance imaging (MRI) findings] was evaluated retrospectively. The degree of neurological dysfunction at the time of presentation was similar to previously reported cases, ranging from ambulatory paresis to plegia with intact nociception. The most common lesion localisations (based on MRI) were to the C1-C5 (30%) and C6-T2 (30%) spinal cord segments, with the T3-L3 and L4-S1 spinal cord segments accounting for 25% and 15%, respectively. Potential inciting or predisposing causes for development of spinal infarction were identified in 12 cats, including physical exertion, trauma, general anaesthesia, renal disease, hyperthyroidism, hypertension and hypertrophic cardiomyopathy. The median time to recovery of ambulation was 3.5 days (3-19 days). Four cats (21%) were euthanased within 2 months of diagnosis. The remaining 15 (79%) cats had a favourable outcome. Follow-up ranged from 6 months to 10 years and 4 months, with a median of 3 years and 1 month. Even when plegia was present at the time of presentation, all surviving cats with long-term, owner-derived follow-up were reported to return to a normal quality of life, suggesting that the long-term prognosis for recovery from presumed ischaemic myelopathy is favourable in the majority of cats.

Mielopatia Ischemica Gatto

J Feline Med Surg. 2014 Dec;16(12):1001-6. doi: 10.1177/1098612X14522050. Epub 2014 Feb 7.

Feline ischaemic myelopathy with a predilection for the cranial cervical spinal cord in older cats.

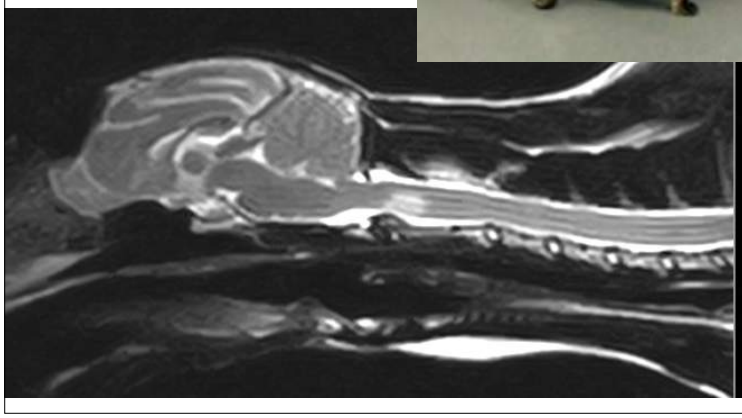
Simpson KM[1], De Risio L[2], Theobald A[2], Garosi L[1], Lowrie M[3].

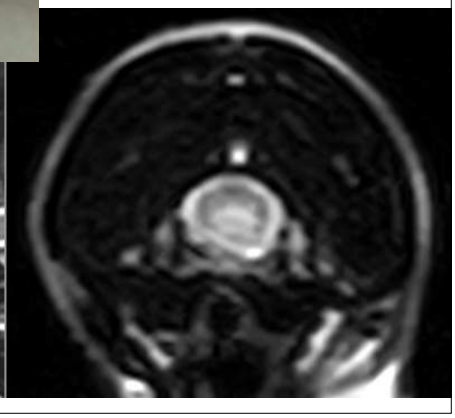
⊕ **Author information**

Abstract

All previous studies on feline ischaemic myelopathy (IM) have reported an acute onset of a single event with no recurrence of clinical signs. This study aimed to evaluate clinical and long-term follow-up data in cats presumptively diagnosed with cervical IM in the territory of the ventral spinal artery (VSA). Eight cats (four females and four males) were included with a mean age of 14 years and 2 months. Neurological status at the time of presentation ranged from ambulatory tetraparesis to tetraplegia with nociception present. Six cats had marked cervical ventroflexion. All eight cats were diagnosed with one or more concurrent medical conditions, including chronic kidney disease (n = 2), hypertrophic cardiomyopathy (n = 2) and hypertension (n = 6). Median time to ambulation was 5.7 days (range 2-14 days). Long-term follow-up ranged from 7 months to 3 years and 3 months (median 1 year and 2 months). Five cats had no reported recurrence of clinical signs and 3/8 had a chronic relapsing disease course. One cat had an acute recurrence of clinical signs 4 months after the first event and was euthanased. Two cats had acute onsets of suspected intracranial infarctions, one of which had further suspected intracranial infarcts every 3 months and was euthanased after one of these. This study highlights the importance of performing ancillary diagnostic tests in older cats presenting with IM, particularly when VSA embolisation is suspected.

Mielopatia Ischemica Gatto





Mielopatia Ischemica Gatto

Tratto Cervicale (craniale)

Fattori Predisponenti

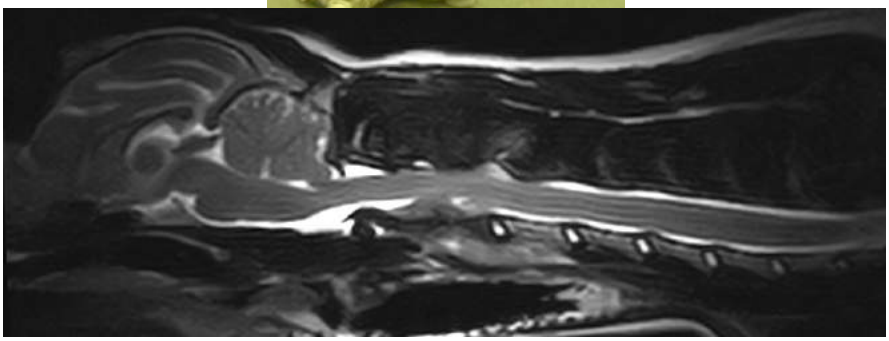
Ipertensione, Esercizio intenso, Insufficienza renale, Cardiomiopatia ipertrofica

Recidive

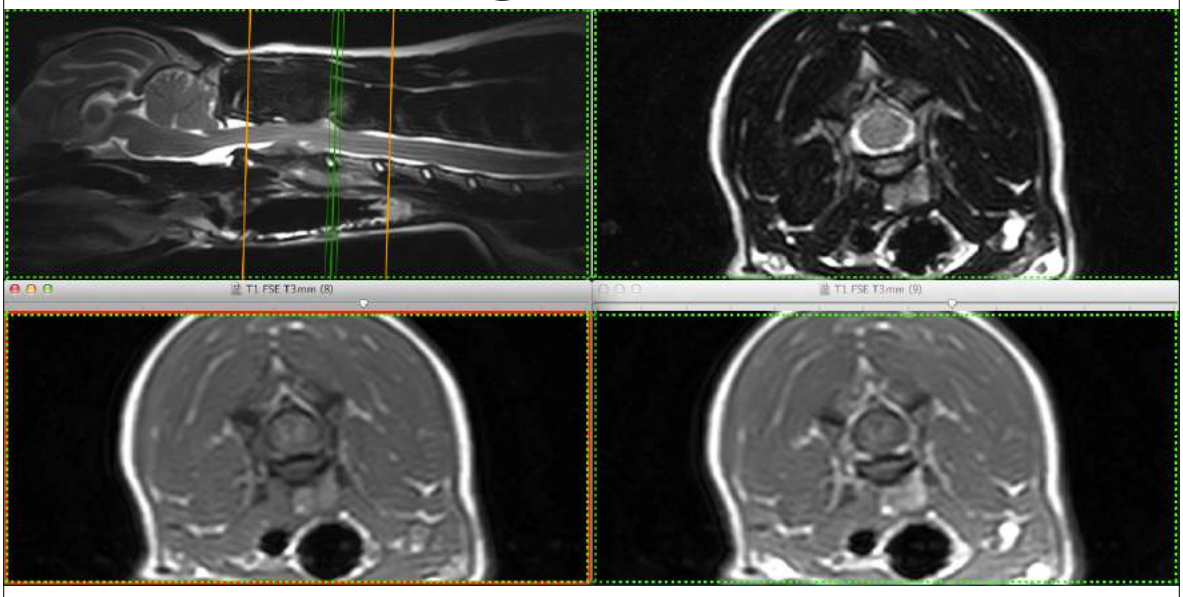
Mielopatia Ischemica Gatto

Toraco-lombare

Le malattie spinali nel gatto



Le malattie spinali nel gatto



Le neoplasie spinali nel gatto

Marioni-Henry K, Vite C, Newton A, et al. Prevalence of diseases of the spinal cord of cats. J Vet Intern Med 2004;18:851–8.

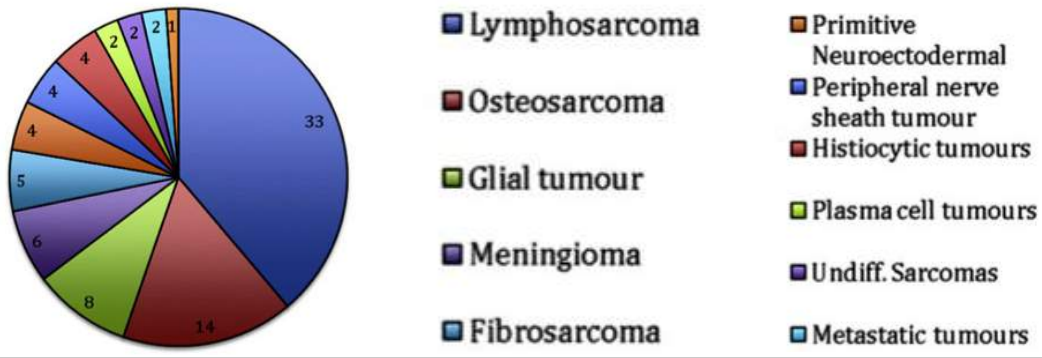
Bradshaw JM, Pearson GR, Gruffydd-Jones TJ. A retrospective study of 286 cases of neurological disorders of the cat. J Comp Pathol 2004;131:112–20.

Marioni-Henry K, Van Winkle TJ, Smith SH, et al. Tumors affecting the spinal cord of cats: 85 cases (1980-2005). J Am Vet Med Assoc 2008;232:237–43.

Goncalves R, Platt S, Llabres-Diaz, et al. Clinical and magnetic imaging findings in 92 cats with clinical signs of spinal cord disease. J Feline Med Surg 2009;

Le neoplasie spinali nel gatto

Marioni-Henry K, Van Winkle TJ, Smith SH, et al. Tumors affecting the spinal cord of cats: 85 cases (1980-2005). J Am Vet Med Assoc 2008;232:237–43.



Le neoplasie spinali nel gatto

Diagnosi in vita (istologica o citologica) in soli 16 gatti su 85!!!

11 LINFOMI

1 Meningioma, 2 Osteosarcomi, 1 Plasmocitoma, 1 metastasi di carcinoma tiroideo

Le neoplasie spinali nel gatto

Levy MS, Mauld
cats: 11 cases (

Trattati CHIRURGICAMENTE!

ment of
evalua-
tion of 26 cases (1990-2005). Vet Comp Oncol 2006;4:41–50.

Meningioma 45-61%

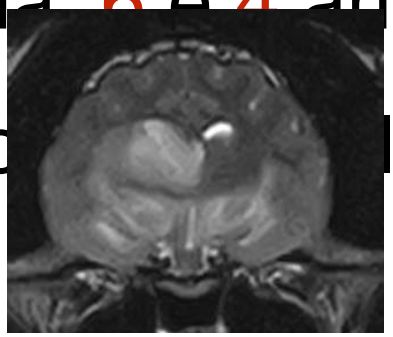
Le neoplasie spinali nel gatto

Linfosarcoma

Età media e mediana 6 e 4 anni

Regione Toracica, lo le

CRANIO (30-40%)

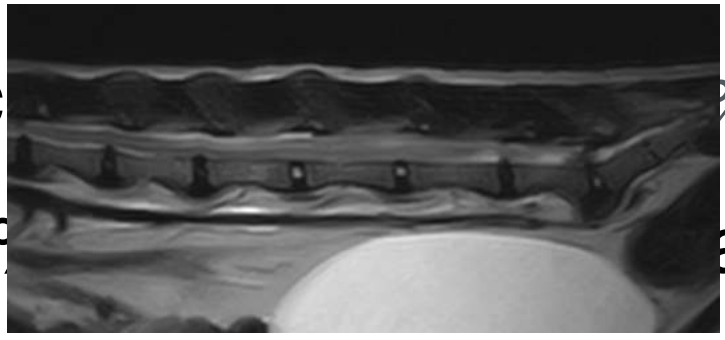


Le neoplasie spinali nel gatto

Linfosarcoma

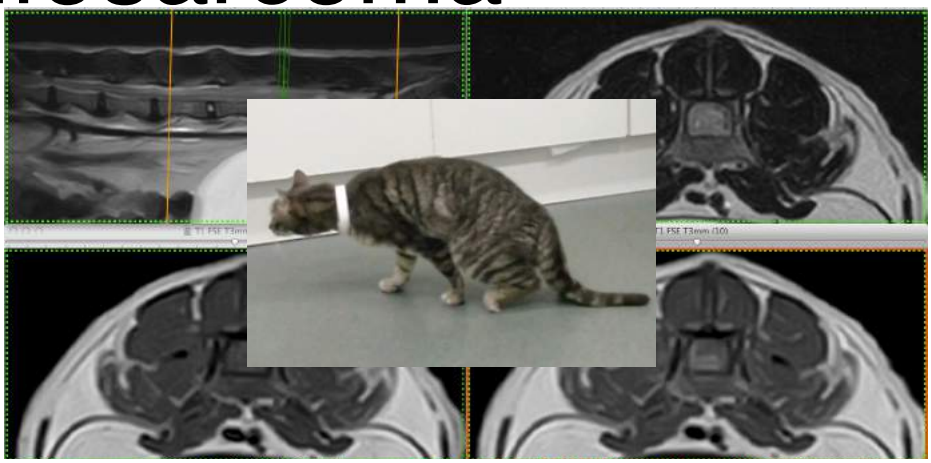
40% c %)

60-90% ale



Le neoplasie spinali nel gatto

Linfosarcoma



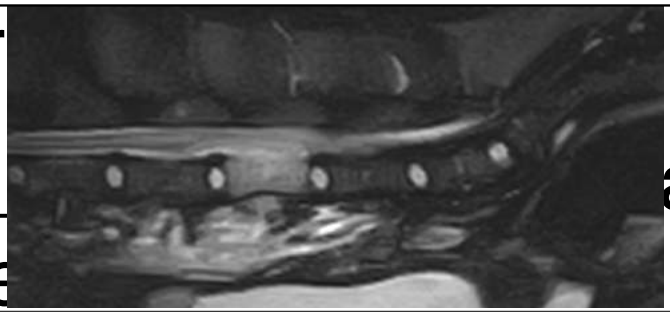
Le neoplasie spinali nel gatto

Linfosarcoma

FeLV

Vertebre, 18%

Altri or



Rene, ato,

milza e

Le neoplasie spinali nel gatto

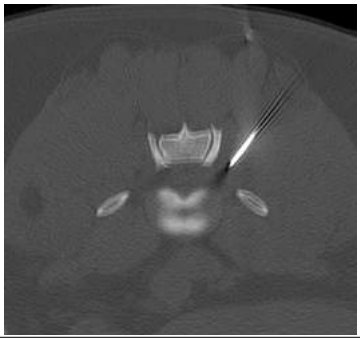
Linfosarcoma

Striscio di sangue	5 - 13%
+	
Midollo Osseo	14 - 67%
+	
LCR	9 - 35%

Le neoplasie spinali nel gatto

Linfosarcoma

FNA della lesione!



Le neoplasie spinali nel gatto

Linfosarcoma

Vincristina, Ciclofosfamide, Prednisone, L-asparaginasi

Radioterapia

Asportazione chirurgica

Le neoplasie spinali nel gatto

Linfosarcoma

Poche decine di casi

PROGNOSI INFAUSTA

Sopravvivenza: 14-62 settimane, 13 mesi

Le neoplasie spinali nel gatto

Meningioma

Età media e mediana, 9.7 e 9 anni

Regione Toracica, cervicale e lombare

Maschi = Femmine

Le neoplasie spinali nel gatto

Meningioma

Le neoplasie spinali nel gatto

Meningioma

POCHI CASI!

Rimozione Chirurgica

+

Chemioterapia, Radioterapia

Le neoplasie spinali nel gatto

Meningioma

Tempo mediano

Levy MS, Mauldin G, Kapatkin AS, et al. Nonlymphoid vertebral canal tumors in cats: 11 cases (1987-1995). J Am Vet Med Assoc 1997;210:663–4. — 180 gg

37 casi

Rossmeisl J, Lanz O, Waldron D, et al. Surgical cytoreduction for the treatment of non-lymphoid vertebral and spinal cord neoplasms in cats: retrospective evaluation of 26 cases (1990-2005). Vet Comp Oncol 2006;4:41–50. — 426 gg

30-1400 gg

Le neoplasie spinali nel gatto

Glioma

J Vet Diagn Invest. 2014 May 12;26(4):513-520. [Epub ahead of print]

Feline spinal cord gliomas: Clinicopathologic and diagnostic features of seven cases.

Hammond JJ[1], deLahunta A[1], Glass EN[1], Kent M[1], Summers BA[1], Miller AD[2].

Author information

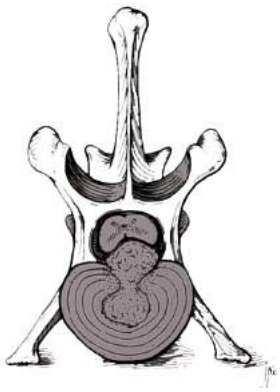
Abstract

Intraparenchy etic
resonance im described.
All cats were (2/7). The
duration of clinical signs ranged from 2 weeks to 3 months. MRI revealed lesions that were hyperintense on T2-weighted images with variable contrast enhancement. All 7 tumors had histologic features consistent with glial origin: 3 were astrocytic (gemistocytic or fibrous), and 2 were oligoastrocytic. Single cases of oligodendroglioma and gliomatosis cerebri were also present in the study. Glial fibrillary acidic protein immunoreactivity was robust in the tumors that were predominately astrocytic, and the gliomatosis cerebri case had extensive BLA.36 and Iba1 immunoreactivity. Ki-67 immunoreactivity was variable and most abundant in the case of malignant oligoastrocytoma. The majority of peritumoral lymphocytes were CD3 positive. The current study expands upon the known reports of spinal cord neoplasia in the cat, confirms a caudal cervical segment predilection, and includes a report of gliomatosis cerebri in the spinal cord of a cat.

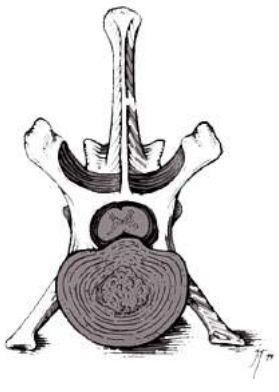
D/D con Mielopatia Ischemica

Le malattie spinali nel gatto

Ernie del disco



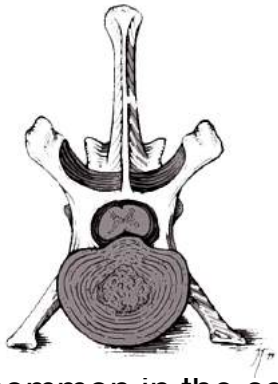
Estrusione discale, Hansen 1



Protrusione discale, Hansen 2

Le malattie spinali nel gatto
Protrusioni Discali

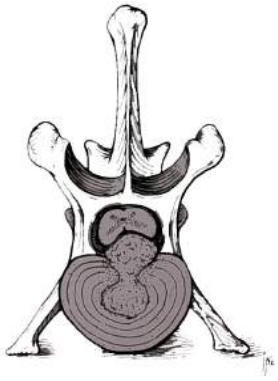
King AS, Smith RN (1958) Protrusion of the intervertebral disc in the cat. *The Veterinary Record* **70,** 509–512
King AS, Smith RN (1960a) Disc protrusions in the cat: distribution of dorsal protrusions along the vertebral column. *The Veterinary Record* **72,** 335–337
King AS, Smith RN (1960b) Disc protrusion in the cat: age incidence of dorsal protrusions. *Veterinary Record* **72,** 381–382
King AS, Smith RN (1964) Degeneration of the intervertebral disc in the cat. *Acta Orthopaedica Scandinavia* **34,** 139–158



Hansen's type II protrusion seems to be more common in the cervical spinal cord region in older cats (>15 years) without clinical relevance

Le malattie spinali nel gatto
Estrusioni Discali

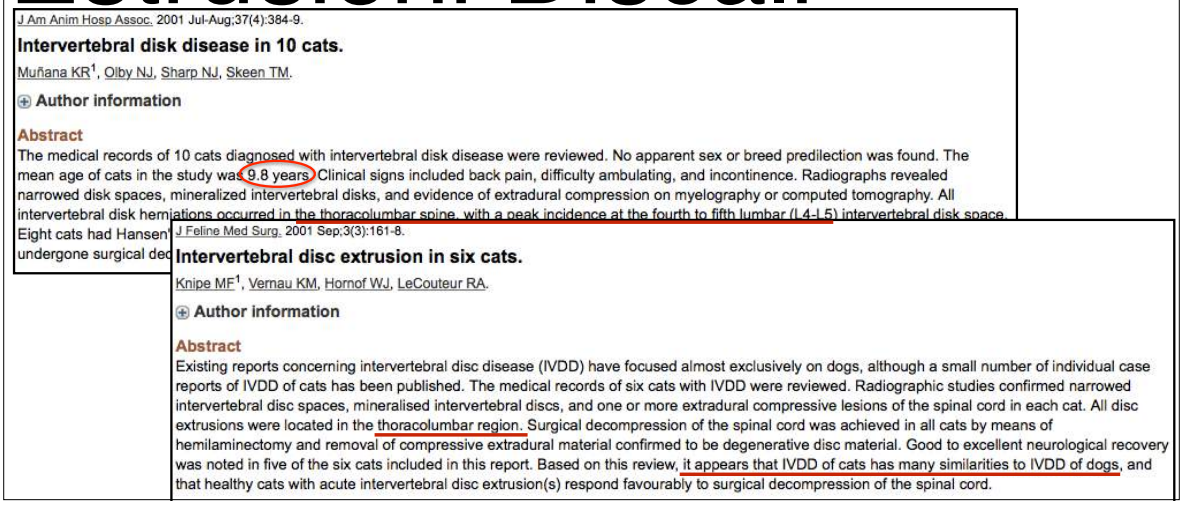
J Am Anim Hosp Assoc. 2001 Jul-Aug;37(4):384-9.
Intervertebral disk disease in 10 cats.
Muñana KR[1], Olby NJ, Sharp NJ, Skeen TM.



Incidenza 0.02% - 0.12% vs 2% nel cane

Le malattie spinali nel gatto

Estrusioni Discali



J Am Anim Hosp Assoc. 2001 Jul-Aug;37(4):384-9.

Intervertebral disk disease in 10 cats.

Muñana KR[1], Olby NJ, Sharp NJ, Skeen TM.

⊕ **Author information**

Abstract

The medical records of 10 cats diagnosed with intervertebral disk disease were reviewed. No apparent sex or breed predilection was found. The mean age of cats in the study was 9.8 years. Clinical signs included back pain, difficulty ambulating, and incontinence. Radiographs revealed narrowed disk spaces, mineralized intervertebral disks, and evidence of extradural compression on myelography or computed tomography. All intervertebral disk herniations occurred in the thoracolumbar spine, with a peak incidence at the fourth to fifth lumbar (L4-L5) intervertebral disk space. Eight cats had Hansen
undergone surgical dec

J Feline Med Surg. 2001 Sep;3(3):161-8.

Intervertebral disc extrusion in six cats.

Knipe MF[1], Vernau KM, Hornof WJ, LeCouteur RA.

⊕ **Author information**

Abstract

Existing reports concerning intervertebral disc disease (IVDD) have focused almost exclusively on dogs, although a small number of individual case reports of IVDD of cats has been published. The medical records of six cats with IVDD were reviewed. Radiographic studies confirmed narrowed intervertebral disc spaces, mineralised intervertebral discs, and one or more extradural compressive lesions of the spinal cord in each cat. All disc extrusions were located in the thoracolumbar region. Surgical decompression of the spinal cord was achieved in all cats by means of hemilaminectomy and removal of compressive extradural material confirmed to be degenerative disc material. Good to excellent neurological recovery was noted in five of the six cats included in this report. Based on this review, it appears that IVDD of cats has many similarities to IVDD of dogs, and that healthy cats with acute intervertebral disc extrusion(s) respond favourably to surgical decompression of the spinal cord.

Le malattie spinali nel gatto

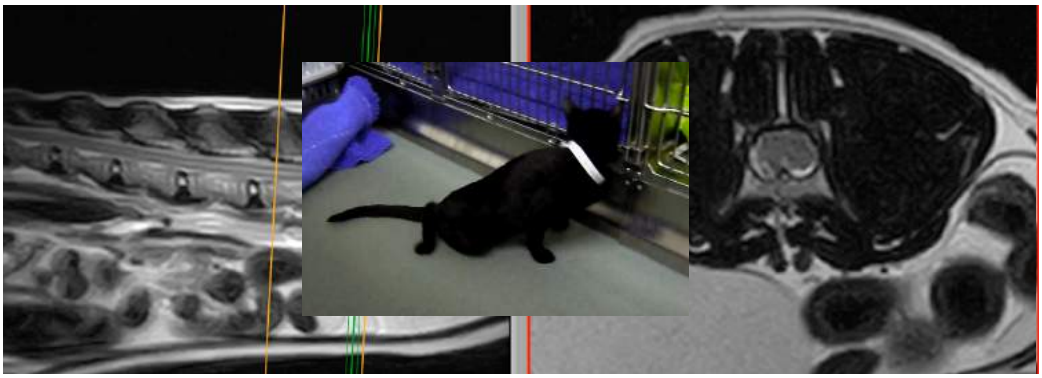
Estrusioni Discali

Età media: 8 anni, 2-15 anni

Regione Toraco-Lombare: paraparesi-paraplegia

Stesse caratteristiche RM

Le malattie spinali nel gatto
Estrusioni Discali



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J Am Anim Hosp Assoc. 2001 Jul-Aug;37(4):384-9.

Intervertebral disk disease in 10 cats.

Muñana KR[1], Olby NJ, Sharp NJ, Skeen TM.

Author information

Abstract

The medical records of 10 cats diagnosed with intervertebral disk disease were reviewed. No apparent sex or breed predilection was found. The mean age of cats in the study was 9.8 years. Clinical signs included back pain, difficulty ambulating, and incontinence. Radiographs revealed narrowed disk spaces, mineralized intervertebral disks, and evidence of extradural compression on myelography or computed tomography. All intervertebral disk herniations occurred in the thoracolumbar spine, with a peak incidence at the fourth to fifth lumbar (L4-L5) intervertebral disk space. Eight cats had Hans undergone surgical

J Feline Med Surg. 2001 Sep;3(3):161-8.

Intervertebral disc extrusion in six cats.

Knipe MF[1], Vernau KM, Hornof WJ, LeCouteur RA.

Author information

Abstract

Existing reports concerning intervertebral disc disease (IVDD) have focused almost exclusively on dogs, although a small number of individual case reports of IVDD of cats has been published. The medical records of six cats with IVDD were reviewed. Radiographic studies confirmed narrowed intervertebral disc spaces, mineralised intervertebral discs, and one or more extradural compressive lesions of the spinal cord in each cat. All disc extrusions were located in the thoracolumbar region. Surgical decompression of the spinal cord was achieved in all cats by means of hemilaminectomy and removal of compressive extradural material confirmed to be degenerative disc material. Good to excellent neurological recovery was noted in five of the six cats included in this report. Based on this review, it appears that IVDD of cats has many similarities to IVDD of dogs, and that healthy cats with acute intervertebral disc extrusion(s) respond favourably to surgical decompression of the spinal cord.

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J Feline Med Surg. 2008 Jul;10(3):291-5. doi: 10.1016/j.jfms.2008.03.001. Epub 2008 May 1.

Partial lateral corpectomy for ventral extradural thoracic spinal cord compression in a cat.

Böttcher P[1], Flegel T, Böttcher IC, Grevel V, Oechtering G.

Author information

Abstract

A 7-year-old, female spayed, domestic shorthair cat was presented for ambulatory paraparesis. No trauma history was reported. Myelography and
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Abstract

A 14-year-old male neutered domestic shorthair cat was admitted to the Veterinary Medical Center, University of Minnesota for evaluation of severe hind limb ataxia, atrophy and paresis. Diagnosis based on physical examination, neurological assessment and magnetic resonance imaging (MRI) was multifocal intervertebral disc disease (IVDD) with dorsal disc protrusion throughout the thoracic and cranial lumbar spine. The Oriental Medicine (OM) diagnosis (pattern identification) was painful obstruction (Bi) syndrome caused by phlegm-heat accumulation with blood stagnation in the spine. High dose prednisolone therapy (1.25mg/kg PO, once daily) initially did not show any significant improvement in clinical signs. The cat was then treated with several modes of acupuncture treatment including dry needle acupuncture, electro-acupuncture and scalp acupuncture along with Tui-Na (hand manipulation in OM) and physical therapy. Significant improvements in mobility, proprioception and spinal posture were noticed and the cat was able to rise, walk and run 4 months after starting acupuncture treatments. This is the first case report of feline IVDD with multiple sites of disc compression which was successfully treated with several modes of acupuncture treatment.

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