NeuroNews

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September 2015

Neurology updates from Europe

NeuroNews is an informal, but hopefully informative, newsletter covering a range of clinically relevant neurological topics. Cases detailed in these articles are patients kindly referred to me by veterinarians in South Australia and western Victoria/NSW.

During my recent leave, I attended the annual combined congress of the European Society of Veterinary Neurology and European College of Veterinary Neurologists. A range of topics was discussed, with an accent on involuntary movement disorders. Several presentations detailed recent work into tremor and seizure syndromes. I have summarised a selection, given their clinical significance.

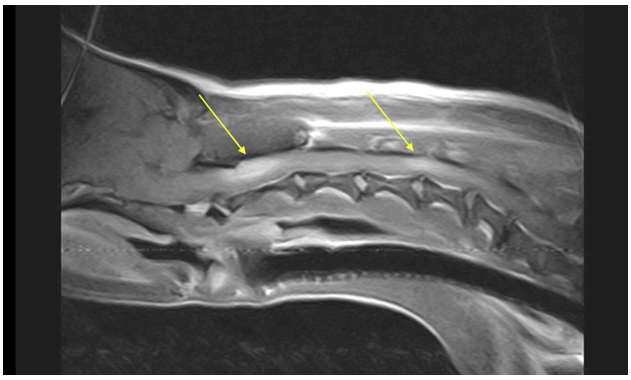
Retrospective review of 135 cases of meningoencephalomyelitis of unknown aetiology treated with cytosine arabinoside and glucocorticoids **(Hill et al)**

Summary:
Survival times ranged from 0 to 3030 days (mean 710 days, median 377 days). None of the evaluated variables were significantly associated with prognosis. 9% of dogs demonstrated side effects of cytosine administration (including vomiting and diarrhoea, calcinosis cutis, myelosuppression and injection site infection). Client reports suggested a 78% incidence of side effects associated with glucocorticoid use; reduced dosage led to alleviation of these signs in 98% of cases. The authors concluded that cytosine arabinoside can be safely used in the long-term management of MUA and has the potential to enable reduced glucocorticoid dosage with a reduced incidence of iatrogenic problems.

- The above findings mirror my own subjective assessment of patient survival in cases managed utilising this combined therapy at *NeuroVet* over the past four years.

Cervical spinal cord granulomatous meningoencephalomyelitis mimicking neoplasia in three dogs **(de Strobel et al)**

Summary:
All dogs presented with signs of cervical hyperaesthaesia and varying degrees of ataxia and quadriparesis. “Fly catching” and general seizure activity were noted in two dogs. MRI imaging revealed a well-defined intradural/extramedullary mass, typically arising from the dorsal aspect and invading the dorsal midline of the cervical cord. Characteristic MRI features included T1 isointensity, mild T2/STIR hypointensity and strong homogenous post-contrast enhancement; meningeal enhancement and dural tail signs were present in all cases. All lesions showed peripheral intramedullary oedema. CSF examination revealed increased protein and marked pleocytosis in two cases. In one case diagnosis was confirmed following biopsy; this dog was euthanased after surgical debulking. The authors concluded that careful analysis of MR images, in combination with the presenting signs and results of CSF analysis, can be of value in differentiating between neoplastic and inflammatory spinal cord disease, and in selection of appropriate treatment.



The image on the left is of a patient referred to *NeuroVet* for diagnostics and management. There is clear post-contrast enhancement at two levels in the region of the dorsal cervical cord. CSF analysis revealed marked protein elevation and leucocytic pleocytosis. A diagnosis of cervical MUA was appropriate. This dog responded well to combination therapy (prednisolone and cytarabine arabinoside).

Value of cerebrospinal fluid analysis in epileptic dogs that lack interictal neurological abnormalities and have unremarkable magnetic imaging of the brain **(Coelho et al):**

Summary:

This study involved a retrospective analysis of data from 120 dogs. Inclusion criteria comprised absence of owner-reported interictal abnormality, unremarkable neurological examination, exclusion of possible causes of reactive seizures (including normal haematology and biochemistry profiles) and normal MRI studies of the neurocranium. The results of CSF analysis were reviewed: CSF samples were deemed abnormal if protein was >30mg/dl and/or total nucleated cell count was >5 cells/µL. Patients with CSF samples with RCC of >5,000/µL were excluded. Abnormal CSF was only found of 5.8% (7/120) of dogs. The prevalence for diagnosis other than Idiopathic Epilepsy was found to be 1/120 dogs (0.8%). The authors concluded that CSF analysis has poor incremental diagnostic value for conditions other than IE in patients with the above inclusion criteria.

Efficacy of imepitoin as first choice drug in the treatment of 53 naïve dogs affected by idiopathic epilepsy **(Gallucci et al)**

Summary:

Commencing dosages ranged between 8 and 30mg/kg bid. Dosage was increased in 34% of dogs due to suboptimal response, but was never greater than 30mg/kg bid. Successful treatment was defined as >50% reduction in seizures and was noted in 47%, 57% and 69% of patients at 3, 6 and 9 months respectively. It must be noted that lack of efficacy, with change of therapy, led to 9 and 11 dogs missing follow-up assessments at 6 and 9 months respectively. Complete remission was noted in 28%, 26% at 23% at 3, 6 and 9 months. Side effects were observed in 19 dogs (36%) and included transient sedation, hyperexcitability, aggressiveness (persistent in 2 dogs), tremors and GI problems. In this study, imepitoin was maximally effective at dosages >15mg/kg bid. Side effects were mild and largely transient.

The general consensus of the meeting was that, whilst imepitoin is a useful addition to our anticonvulsant armentarium, it should not yet be seen as the first line drug of choice in all cases of IE. Anecdotally, “when it works, it works well”.

As always, I would be delighted to discuss management of any neurological cases with you.

Best wishes,

Ian Douglas

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