Parasitic meningoencephalitis in a horse

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History

- **Case C1500257** - Necropsy was performed on an 11 year old, gelding, Warmblood horse with an acute onset of central nervous system disease.
- Clinical signs included: Severe ataxia, over reactive to stimuli, running into walls and falling down.
There were no gross lesions to the CNS.

Analysis for rabies, EEE and West Nile were all negative.
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Histological lesions

- Granulomatous eosinophilic meningoencephalitis
- Spheroids
- Malacia
- Rhabditiform parasites
Diagnosis

- Morphologic- Moderate, multifocal, chronic granulomatous and eosinophilic, necrotizing meningoencephalitis with intralesional rhabditiform nematodes and spheroids.
- Etiologic- Halicephalobus gingivalis (Micronema deletrix)
Discussion

- Halicephalobus includes free living nematodes of soil, manure and decaying humus that invade tissues in horses and humans
- May be found in: brain, kidneys, oral and nasal cavities, lymph nodes, spinal cord, adrenal glands, heart, stomach, liver, ganglia and bone
- Ova, larvae and adult females can be found in tissues and reproduction is believed to be by parthenogenesis.
- Invasion may be via skin lacerations followed by hematogenous spread; prenatal and mammary transmission was suggested
Halicephalobus gingivalis (H.deletrix) in the brain of a horse-- Cienc. Rural vol.37 no.4 Santa Maria July/Aug. 2007


The distribution pattern of Halicephalobus gingivalis in a horse is suggestive of a haematogenenous spread of the nematode. Acta Vet Scandinavica 2014, 56:56
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Questions