



PARASITES EXOTIC TO AUSTRALIA 1

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Parelaphostrongylus tenuis

This parasitic roundworm is a non-pathogenic parasite of the brain of white-tailed deer of Northern America. When infection occurs in some other ruminants, very severe clinical signs of the central nervous system can occur - including death.

In North America when moose become infected the classic "moose sickness" develops in which the moose develop a circling disease, waste away and die.

Other species affected include Caribou, Wapiti, Red Deer, Fallow Deer, Mule Deer, Goats, Domestic Sheep and Guinea Pigs.

Cattle seem to be very resistant to infection whereas Goats die within a few days of infection.

Transmission

P.tenuis has an indirect life cycle involving slugs and snails (similar to liver fluke). The female worms lay eggs directly into the blood vessels of the brain from where they are passed to the lungs. Here they hatch into first-stage larvae, are coughed up and swallowed and eventually passed into the faeces. Like the liver fluke larvae the *P.tenuis* larvae penetrate the foot of certain slugs and snails to continue their development.

Infection is passed to other animals when the slugs and snails are eaten during grazing.

Clinical Signs

Goats and Fallow Deer may die of acute peritonitis within a few days of infection. In Wapiti and Red Deer neurological signs are common, including listlessness, stiffness, incoordination, hindquarter lameness, circling, blindness and paralysis.

Diagnosis

The diagnosis can be difficult since it requires finding the larvae in the faeces. The problem being is that these larvae can look very similar to lungworm larvae, which complicates the diagnosis. The only definite way of diagnosing the disease is to rear and identify adult parasites.

Treatment

A number of different drugs have been tried but none have been effective.

Significance

The parasite has the potential to be devastating to deer farms in North America. This is one of the reasons why live deer are prohibited from being imported into Australia from North America.

Reference:

Haigh, JC & Hudson, RJ (1993). *Farming Wapiti and Red Deer*. St. Louis, Missouri: Mosby -Year Book Inc, pp 263-269.