



72 Lowry Street, Rochester, Vic, 3561  
Ph: (03) 54842255 Fax: (03) 54842424 Email: admin@rochyvet.com.au

## GIARDIA IN CALVES

*Giardia duodenalis* (Giardiasis) is a type of parasite known as a protozoa. This parasite is transmitted by the faecal-oral route (either through direct contact with infected faeces or contaminated water or feed). Its life cycle is very complicated involving different life stages.

*Giardia* typically affects calves 2 to 12 weeks of age, however it can affect calves as young as 4 days old. The source of the infection may be from another calf, adult cattle, wildlife or other pets shedding the protozoa cysts in the environment. Contaminated water sources, such as dams, streams, and water run-off areas have been associated with outbreaks of Giardiasis in cattle.

Infection in calves is commonly asymptomatic but infection may also be associated with malabsorptive diarrhea (pasty to watery faeces with a mucoid appearance) and ill-thrift. The clinical signs seen in calves are due to damage to the small intestinal tract which leads to a decreased absorption of water, electrolytes, and nutrients.

The disease is commonly found alone or in combination with other pathogens as a cause of calf diarrhea such as *Cryptosporidium parvum*.

Diagnosis can be made by using a calf-side faecal tests or by other laboratory techniques such as direct faecal smear or faecal float examination.

Treatment in calves consists of oral dosing of Fenbendazole (10 to 15mg/kg bodyweight) daily for 3 days. Other supportive therapies include providing an anti-inflammatory (such as meloxicam) and additional oral fluid feeds to assist with hydration.

Controlling *Giardiasis* can be difficult. It is recommended to provide a clean, fresh water source, clean and dry bedding and appropriately stocked pens (don't over crowd pens). The use of disinfectants such as quaternary ammonium compounds (Virkon S™), can reduce the number of the infective stages of the protozoa in the environment and should be used on all surfaces of the calf shed. Ideally disinfectants should be left on the surfaces for 20-30 minutes before washing off.

\*\*\*\**Giardia* is a parasite that can be spread to humans. Good hygiene practices need to be undertaken.

#### Reference

O'handley, R. M., Olson, M. E., Fraser, D., Adams, P., & Thompson, R. C. A. (2000). Prevalence and genotypic characterisation of *Giardia* in dairy calves from Western Australia and Western Canada. *Veterinary parasitology*, 90(3), 193-200.

Peek, S., & Divers, T. J. (2008). *Rebhun's Diseases of Dairy Cattle 2<sup>nd</sup> Edition*. Elsevier Health Sciences, 11180 Westline Industrial Drive, St Louis, Missouri 63146, pp 228.

Siwila, J. (2017). Giardiasis: livestock and companion animals. *Current topics in Giardiasis*, 39-49.