



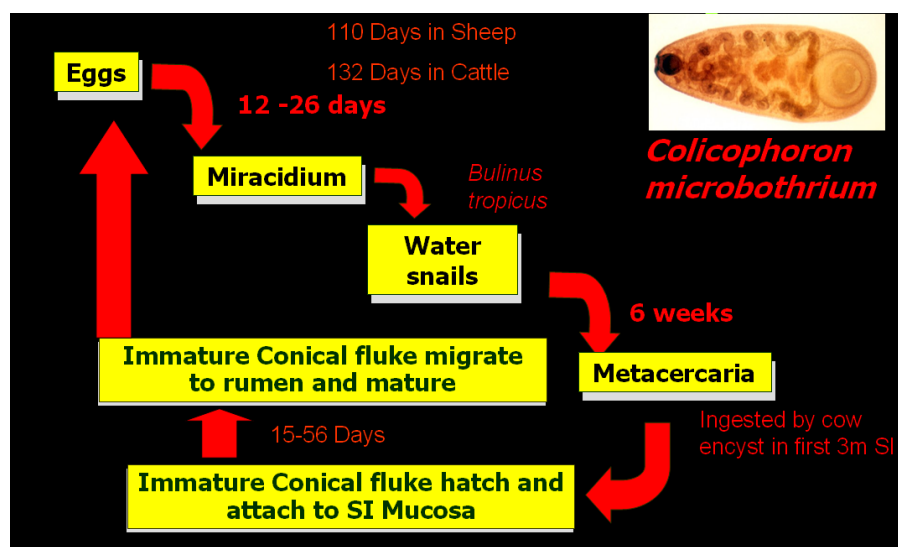
Conical Fluke (*Calicophoron microbothrium*) Control
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Adult Conical Fluke are found in the rumen and are not responsible for the clinical signs seen with a Conical Fluke infestation. The adult fluke only produce eggs. The clinical signs of conical fluke infestation are caused by the immature flukes that encyst in the first 3 meters of the small intestine.

Life Cycle

The eggs are passed in the faeces and will hatch in 12-26 days if the eggs are deposited into water. A motile miracidia hatches out of the egg and enters its intermediate host the fresh water snail *Bulinus tropicus*. Only *Bulinus tropicus* snails of less than three weeks of age are infected, older snails do not become infected. About 6 weeks after ingesting the miracidia, the snails start excreting cercaria which encysts on vegetation surrounding water sources to form metacercaria. The metacercaria need cool moist condition to survive and will die if they dry out or are submerged.

Sheep and cattle get infected by ingesting the metacercaria while grazing in marshy areas. After ingestion the metacercaria encyst in the first three meters of the small intestine. The immature flukes hatch out of the cyst and attach to the mucosa of the small intestine. The immature flukes start migrating up to the rumen after 15-56 days where the flukes mature and start laying eggs. The entire life cycle takes 110 days to be completed in sheep and 132 days in cattle.



Conical Fluke Life Cycle



Clinical Signs and Epidemiology

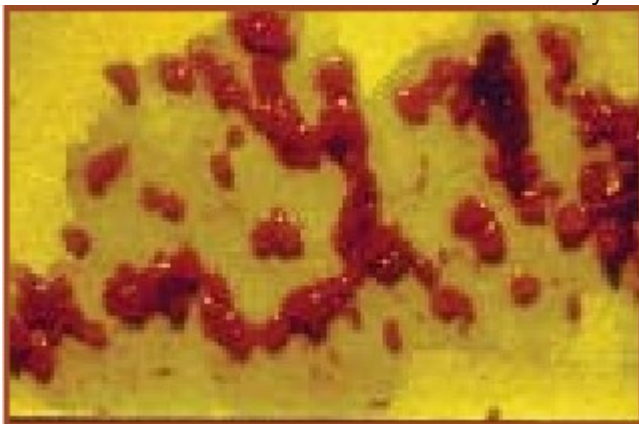
Outbreaks are common in livestock that graze in marshy areas. Outbreaks can occur from April and continue throughout winter. The moisture on irrigated pastures is often adequate for the survival of water snails and metacercaria. Therefore outbreaks of Paramphistomiasis can occur throughout the year on irrigated pastures.

The clinical signs of conical fluke infestation are anorexia, fetid diarrhoea and weight loss. The diarrhoea is seen in adults and young animals. These clinical signs are caused by the immature flukes. The immature flukes attach to the small intestinal mucosa by grasping a plug of mucosa. The swelling and strangulation of the small intestinal mucosa causes severe discomfort and loss of appetite resulting in progressive weight loss. Foul smelling fetid diarrhoea is caused by the decomposition of intestinal mucosa and contents. Occasionally swelling of the head or bottle jaw is seen and the animals can die.

Adult flukes in the rumen seldom cause any problems and only produce eggs. Sheep are usually worse affected than cattle.



Oedema of the small intestinal wall caused by immature conical flukes



Immature Conical Flukes

Control of Conical Fluke

The most important control method is to keep infected water snails away from live stock. This involves the fencing off of marshy areas, thus preventing cattle from grazing in marshy

areas. It is also important to repair any leaks in dams and water troughs. Leaking dams and troughs can create an ideal habitat for the survival of water snails.

Controlling water snails in marshy areas is potentially toxic to livestock and the environment and is often unsuccessful. Therefore the only way to kill conical fluke is to treat affected animals.

Any animals showing clinical signs of Paramphistomiasis needs to be treated with a product that kills both adult and immature flukes. This will prevent egg laying thus breaking the life cycle of the parasite and will also treat the clinical signs of Paramphistomiasis by killing immature flukes. The two actives that can be used for this purpose is Oxyclosanide and Resorantel.

The products in the Afrivet range that contain these actives are Ecolint Super (Resorantel 25% m/v) and Tramizan (Levamisole 2,5% m/v and Oxyclosanide 3,4% m/v). Tramizan is ideal for use in Dairy cattle because this product has a zero milk withdrawal however it is very important to give two doses of Tramizan with 72 hours between each dose. This will ensure that both adult and immature conical flukes are treated. Ecolint Super only requires one treatment for the treatment of Paramphistomiasis from conical fluke.



Tramizan Reg. no G0809 Act/Wet 36/1947
Act/Wet 36/1947



Ecolint Super Reg. No. G3065

References

1. Diseases and Parasites of Cattle, Sheep and Goats of South Africa 1st edition. P Oberem et al. (Afrivet Business Management South Africa South Africa)
2. Parasitic Infections of Domestic Animals A diagnostic Manual. Johannes Kaufman (Birkhäuser Verlag Berlin 1996)
3. The Helminths of Ruminates – The Lectures CD. The Department of Veterinary Tropical Diseases, Faculty of Veterinary Science, University of Pretoria.

Tramizan Reg. No. G0809 Act 36/1947,

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