

Trichuriasis

Compiled by

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- Caused by *Trichuris ovis* (**Whipworm**) @ a GI nematode
- *Trichuris ovis* occurs in the **caecum** and **colon** of sheep & goats.
- Sheep over eight months of age show an **age resistance** to infection and resistance to reinfection 2-3 weeks after infection.
- Relatively harmless and asymptomatic in small numbers .
- But, in **heavy infection** @ noticed generally in very young lambs & kids, host suffers from

- Bloody colitis
- Diphtheritic caecitis
- Severe **anaemia**
- Diarrhoea
- Dehydration
- **jaundice**
- Death

- **Life cycle** # direct
- **Infection** # Ingestion of infective larval stage within the eggs

After ingestion # infective stage of L1 (within the eggs) hatch in the small intestine and releases larvae which burrow into the intestinal wall of the caecum and proximal colon where they develop to mature worms

- **Prepatent period** # 7-9 weeks

- **Morphology**

@ Male measures 50-80 mm in length of which the narrow and filamentous anterior end constitutes 75% of the length

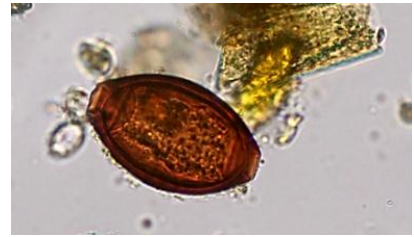
@ Female is 37- 70 mm long of which the narrow and filamentous anterior end forms 65 to 80 % of length

The fully evaginated spicule is 5-6 mm long and having a sheath which bears an oblong swelling a short distance from its distal extremity and is covered with minute spines which decrease in size towards the distal extremity



- Eggs #

- **Brown**, barrel shaped or lemon shaped with a transparent, conspicuous plugs at both ends
- They contain an unsegmented embryo when laid
- Under optimal conditions these may subsequently survive for several years



- Damage

- ✓ The larvae and mature worm also induce mechanical damage to the mucosa of small and large intestines followed by extensive local inflammation and haemorrhages. Causes ulcerative and necrotic lesions on the mucosa.
- ✓ Thickening of the caecal wall prevents large intestine from absorbing fluids causing the host to have diarrhoea.

- **Post-mortem examination**

- ✚ Presence of worms
- ✚ Congestion, haemorrhagic spots, ulcer formation and nodule formation with thickening of the caecal valve
- ✚ Enlarged lymphoid nodules on the lamina propria
- ✚ Petechial haemorrhages



Lesions are caused by the **direct** injure commencing worm attachment or the **indirect damage** from soluble products released by the worms.

In untreated animals, it causes destruction of the lining epithelium where they predominantly inhabit



- Diagnosis

- ✓ Clinical signs are not the pathognomonic.
- ✓ Faecal Test @ Barrel-shaped eggs with conspicuous plugs at both ends



- Treatment @ depends on EPG – Should be more than 500

- **Fenbendazole**
- **Oxfendazole** is effective against adult parasites (89-99% efficacy) and immature parasites (62- 100% efficacy)