



Parafilaria



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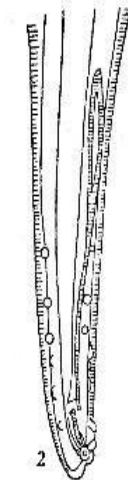
Parafilaria

Morphological Characters:

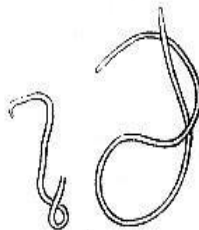
- Slender shaped white worms.
- Adult worms bear 13 rows of cuticular elevations at the anterior end.
- Male worms has loosely coiled and bluntly rounded tail.
- Female worm has bluntly rounded posterior tail.
- Female worm is ovoviviparous and hence, lay larvated egg on the skin surface.



1



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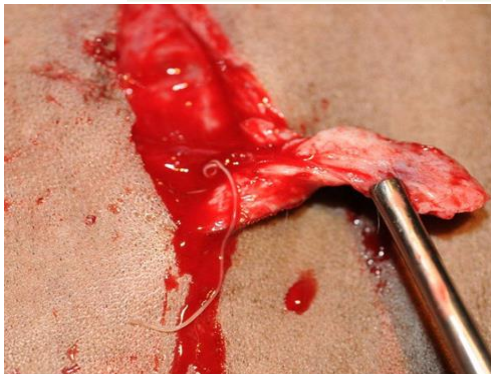
Parafilaria

Family : Filariidae

Species:



Species	Final host	Intermediate host	Location
<i>Parafilaria bovicola</i>	Cattle & buffalo	Muscid flies (<i>Musca lusoria</i> & <i>M. xanthomelas</i>)	Subcutaneous and intermuscular connective tissue
<i>Parafilaria multipapillosa</i>	Horse & donkey	<i>Haematobia</i> spp.	

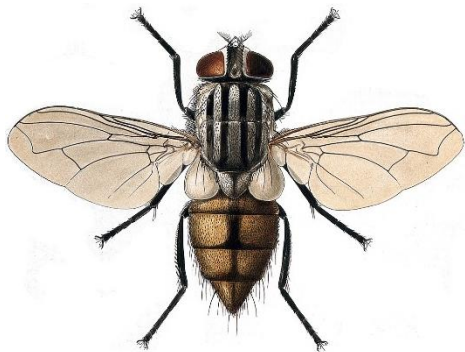


Parafilaria

Life-cycle:

Indirect life-cycle

Species	Intermediate host
<i>Parafilaria bovicola</i>	Muscid flies (<i>Musca lusoria</i> & <i>M. xanthomelas</i>)
<i>Parafilaria multipapillosa</i>	<i>Haematobia</i> spp.



Musca sp.



Haematobia sp.

Parafilaria

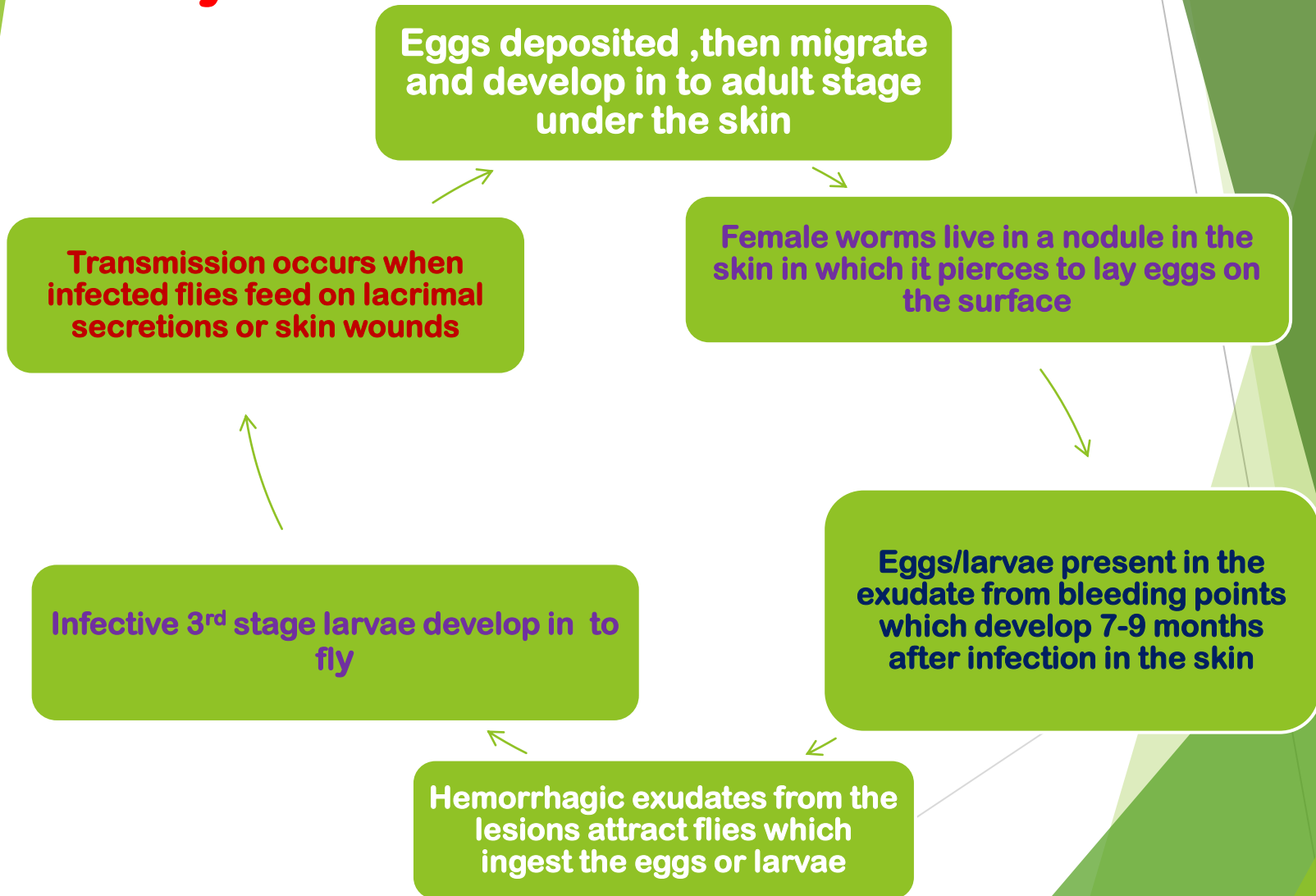
Transmission:

- ⌚ Transmission occurs when infected *Musca* or *Haematobia* flies (feed on lachrymal secretions or skin wounds in final hosts).
- ⌚ Eggs or microfilariae (L₁) present in exudates from bleeding points in the skin surface is ingested by flies and in which they develop to L₃.



Parafilaria

Life-cycle:



Parafilaria

Pathogenesis :

- ✓ Haemorrhagic nodules under the skin which may appear during summer in cattle & buffalo particularly in draught animals like bullocks on their neck, shoulder etc.
- ✓ Nodules may burst on sunny day and blood with sero-sanguineous exudates comes out. Due to this disease is called haemorrhagic dermatitis or summer bleeding.
- ✓ Secondary bacteria infections may lead to abscess formation in bleeding points
- ✓ *Parafilaria multipapillosa* form haemorrhagic nodules more nodular than *Parafilaria bovicola*.



Parafilaria

Clinical signs:

- ⌚ ***Parafilaria bovicola* causes haemorrhagic dermatitis or summer bleeding in cattle, commonly on the head, shoulders, withers and neck.**
- ⌚ **Summer bleeding commonly occurs in draught animals like bullocks working in the field in the day time.**
- ⌚ **Haemorrhagic nodules are unhealing type and disappear in the winter season and again appear in the summer season.**
- ⌚ **Infection also causes weakness of animals and disturbances to the animals which result reduction in their working capacity.**



Parafilaria

Diagnosis:

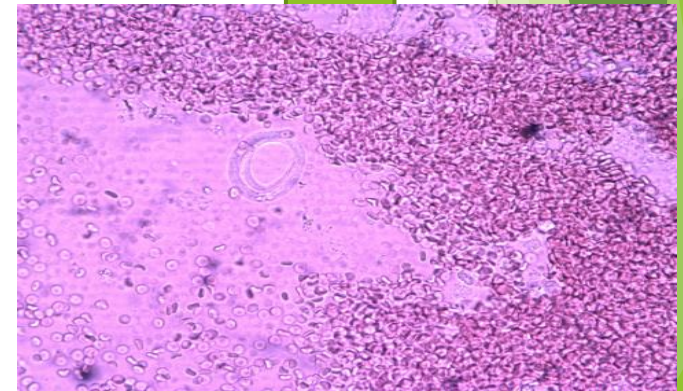
- On the basis of clinical signs (haemorrhagic nodules).
- Microscopic examination of haemorrhagic exudates reveal embryonated and stretched out microfilariae of worm.
- Female worms may be extracted from the hole of the freshly burst nodule for specific diagnosis.

➤ ELISA

Microfilaria



Haemorrhagic exudates



Embryonated egg

Parafilaria

Treatment :

- Nitroxylin @ 20 mg/kg repeat after 3 days.
- Ivermectin @ 0.2 mg/kg s/c
- Levamisole- 7.5 mg/ kg daily for 4-5 days
- Fenbendazole @ 1-5-2 mg/kg for 5 days

Parafilaria

Control:

- ❖ Difficult due to abundances of intermediate hosts (*Musca* flies etc.)
- ❖ Regular use of insecticide, cleaning and destroying breeding ground etc.
- ❖ Regular use of therapeutic drugs as prophylaxis to control of *Parafilaria* spp.



**THANK
YOU**