

Worm infestation

Includes:

1-Round worms: (Nematodes)

I-large intestine

- 1-Ascariasis
- 2- Cappilliarasis (hair worm)
- 3- Syngumus trachea (red worm)

II-cecal worms---Hetrakis

2-Cestodes (Tap worms)

1-Ascariasis

Def:

It is a nematodal worm infestation of large intestine of chicken and turkey caused by *Ascaridia gallanae* characterized by mortalities in high infestation

Cause:

* *Ascaridia galli* in chickens

* *Ascaridia columbi* in pigeons.

-Egg=large with embryonic cell (non infective)

-Non infective stage needs 2-3 weeks to be **embryonated**
(infective stage)

-embryonated egg persist for years I litter so must make disinfection by hot water contain caustic soda before each cycle

Transmission and life cycle:

-direct life cycle (no I.H) as egg descended with feces of infected birds still 2-3 weeks in litters to become infected which can contaminate food and water and reach to another bird via ingestion then ruptured in intestine and give larvae which can attack epithelium of intestine and forming adults

Signs:

A-general signs (weakness, off food, ruffled feather.....)

B-anemia with pale comb and emaciation

P/M:

Presence of adult worm inside intestine in dead bird and may found the adult in feces of live bird

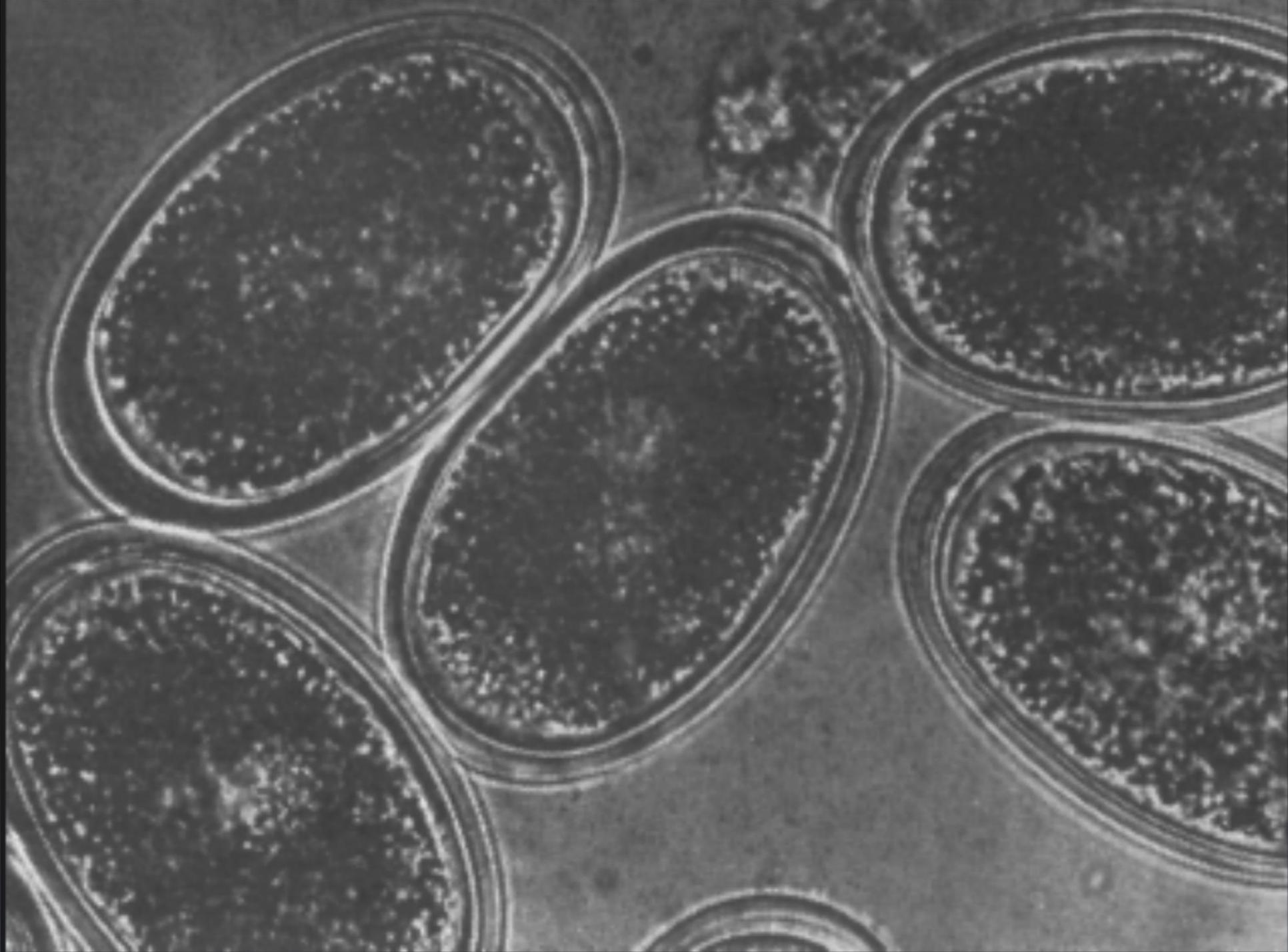
Diagnosis:

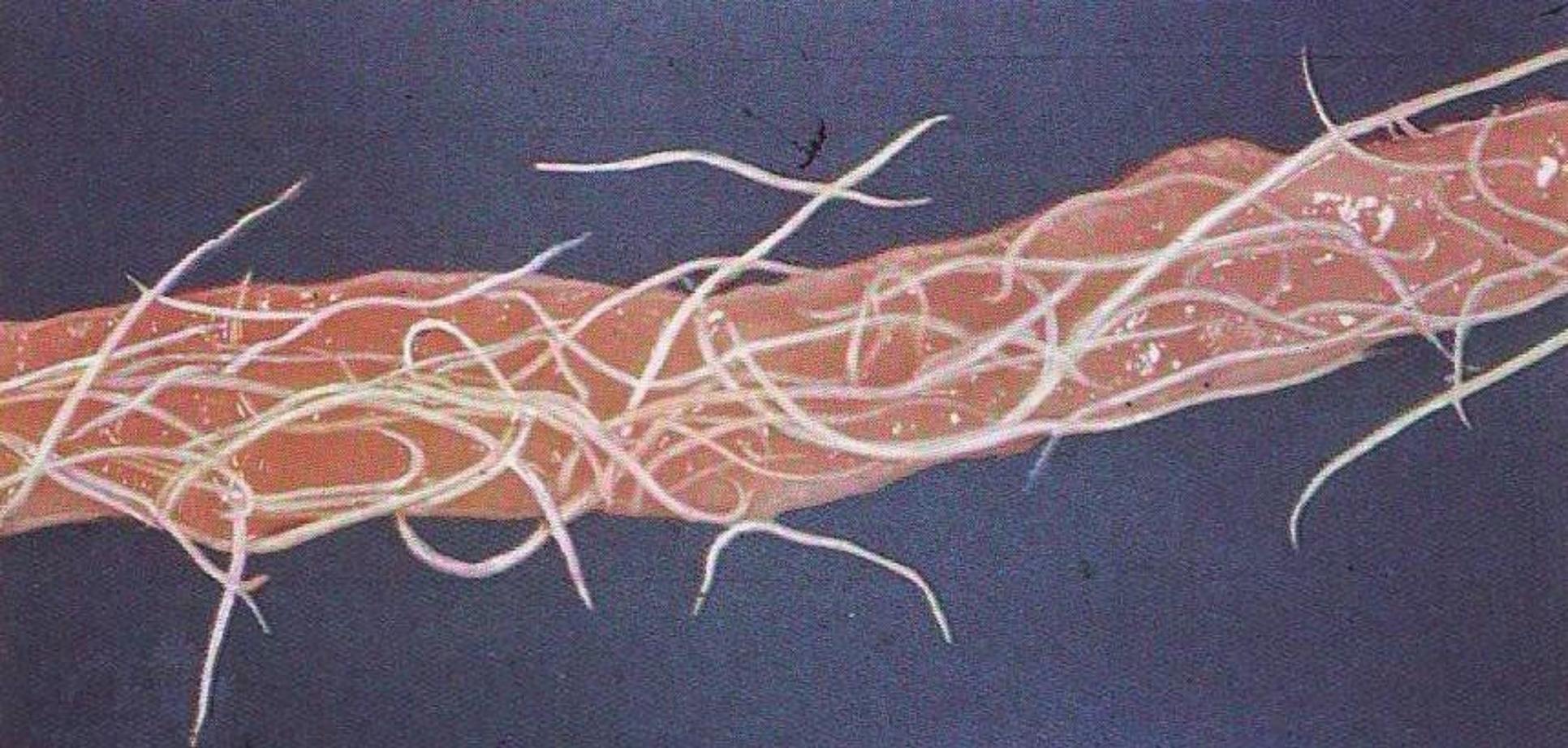
- Direct smear and litter sample examination for demonstration of eggs Large double walled and contain embryonic mass.
- In dead birds the parasite could be detected in the intestinal tract and the worm may cause blocking of the intestinal tract in severe infestations.

Treatment:

Piperazine citrate---2 gm /liter water

Piperazine citrate –as prophylactic treatment every 1-2 months May use phenothiazine





2-Hair worm (cappillaria)

Def:

It is nematodal infestation by long cylindrical, thin wall and small sized worm (hair like)

Cause:

C.annulata==present in m.m of esophagus & crop

C.obsignata=present in lower part of crop

-egg =lemon shaped

-indirect life cycle (need I.H) =ants

Signs:

1-sings more severe than of Ascariasis and lead to death

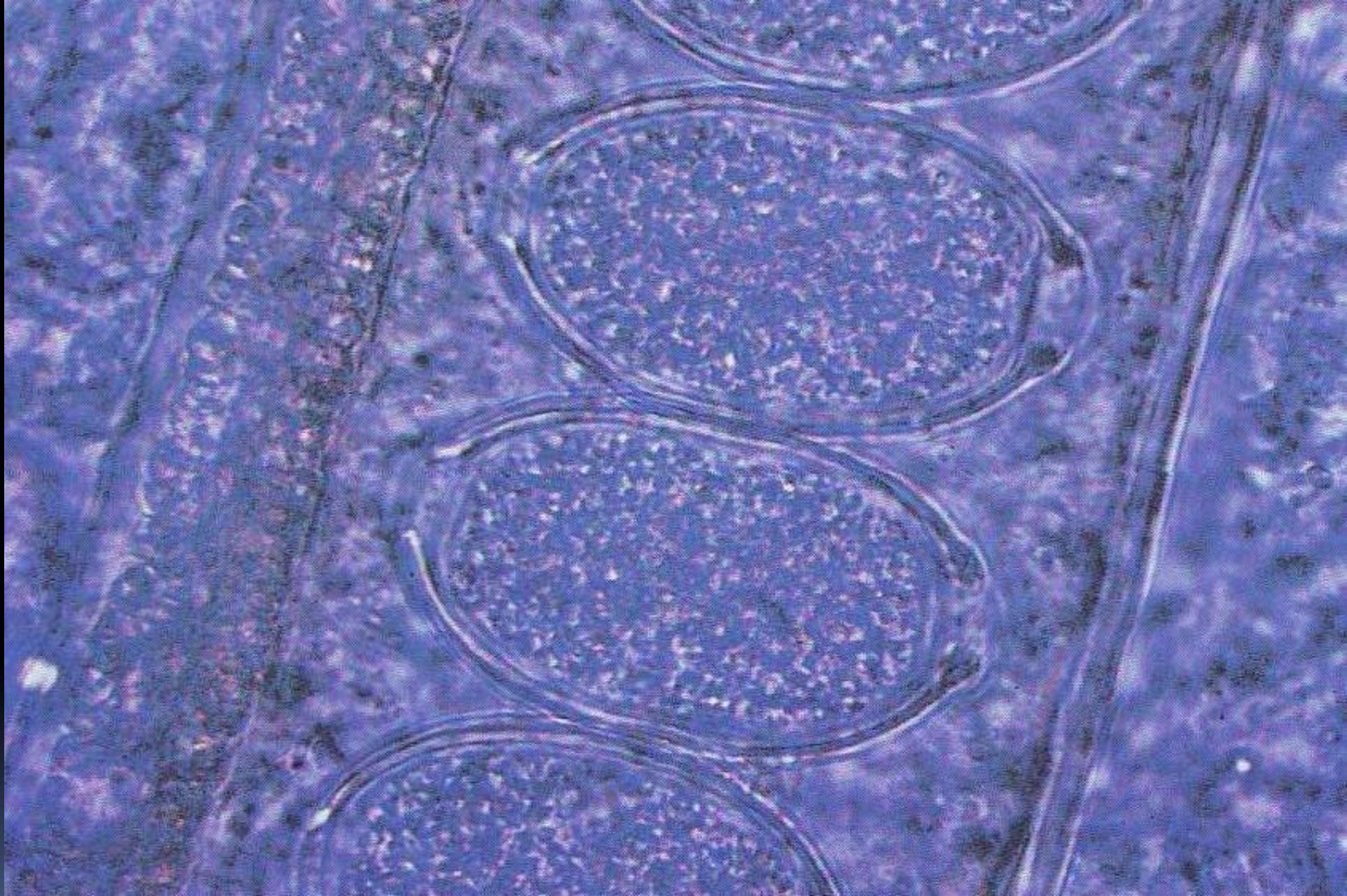
2-weakness, anemia& emaciation

Diagnosis:

- **Direct smears for demonstration of eggs**, Lemon shape with embryonic masses in its edges
- Intestinal washing and sieving through pores which are less than 0.25mm in diameter worm is thicker posteriorly "due to presence of caudal alae" and thinner anteriorly and attached to intestinal mucosa by a scolex so try to
- After sieving the thinner part is seen hanged from the sieve where the thick part is trapped
- Picking of the thin worms by a forceps then put on a slide and examine under microscope

Treatment:

- Mebendazole and thiobendazole





3-Tracheal worm (syngamus trachea)

"Gape worm, Red worm":

Def:

It is nematodal infestation by Y shaped worm (female contained male) *syngamus trachea* which ch.ch by hemorrhagic tracheaetitis, anemia and tracheal irritation

Cause:

Syngamus trachea

Signs:

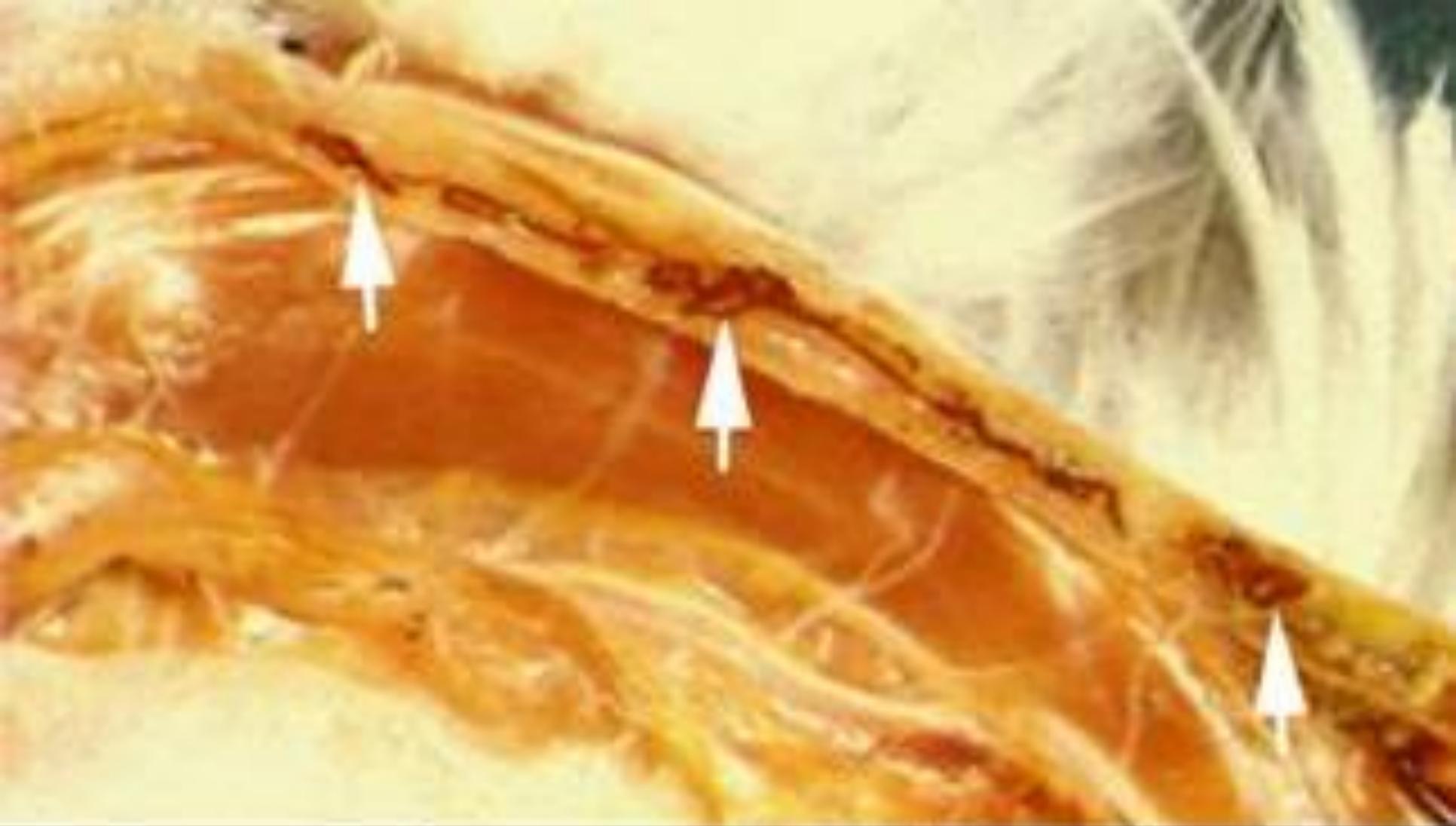
- respiratory signs (coughing of blood mucous exudates containing eggs or adult worm, sneezing ...)
- gasping and may death in severe infestation

Diagnosis:

- In live birds detection of eggs elliptical and operculated in feces.
- In dead birds the Y-shape worm is seen in the tracheal lumen.

Treatment and control:

- spray Triiodine with water (1part:9 parts) for worm expulsion
- dusting by barium antimony tartarate
- hygienic measures



Syngamus trachea

- adult worms in the trachea of a turkey

4-Hetrakis (Cecal worm)

Def:

It is nematodal infestation by Hetrakis gallanae which is similar to Ascariasis but smaller than it (1/4 size) ch.ch by typhilitis and ceacal core

Cause:

Hetrakis gallanae, its egg similar to of Ascariasis egg but smaller and can persist for long period outside the host

-egg has a role in histomoniasis transmission for turkey

Sings:

-typhilitis and sings of enteritis

Diagnosis:

- Direct smears to detect eggs smaller than Ascaridia but thicker.
- Scraping of the caeci to detect the worm in the mucosa.

Treatment:

-Phenothiazine as pellets in ration -May use Piperazine



Cestodiasis

Def:

It is a cestodal infestation by tap worms which ch.ch by bleeding dropping and hemorrhagic enteritis

Cause:

-long cestods—**Railliatina echinobothrida** in chicken and turkey

-short cestods—**Duvania proglitina** in water fowel

*they ch.ch by suckers and hooks

*indirect life cycle need I.H (ants, grass hoberes and earth worm)

Signs:

-suckers and hooks causing intestinal bleeding and feed by diffusion causing severe anemia and enteritis

Treatment and control:

-control on I.H and hygienic measures

-Albendazol as pellets in water lead to scolex detachment so must repeat treatment on frequent periods





Davainea proglottina.

Eggs of chicken tapeworms

