

1-Trichodinosis

Trichodinids are the most common ectoparasites of both freshwater and marine fishes. **Non specific** parasite, they **normally** present in small number on the EBS of fish and has **no free** living stages. When the fish stressed or on young fish they increase in number greatly and initiate the disease.



Definition

It is ectoparasitic protozoal disease of most freshwater fishes, caused by many species of trichodina parasite, it is stress related disease, it occurs throughout the year and predominant during spring, summer and autumn. Ch. by signs of skin irritation and respiratory affections



Cause

Trichodina species (nigra, acuta)



Shape

Flat disc (dorsal view) or bell shape (lateral view) has 3-4 rows of cilia on the aboral surface, which transform the adhesive disc

Feed

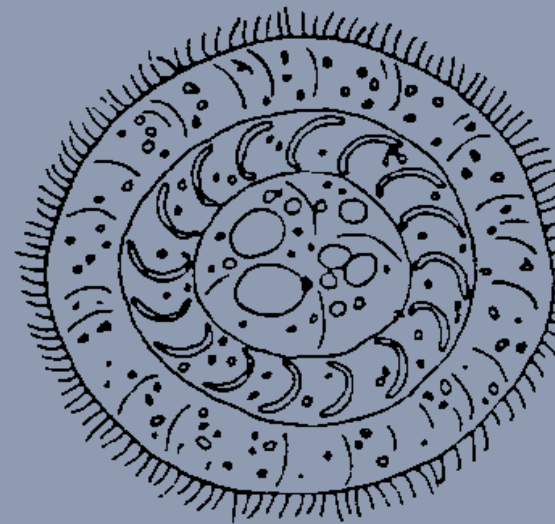
waterborne particles , bacteria and detritus

Motile

gliding and crawling



1-Trichodinosis



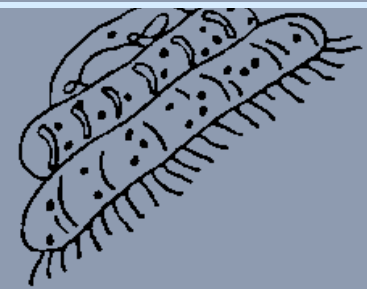
Cilia

Denticular ring

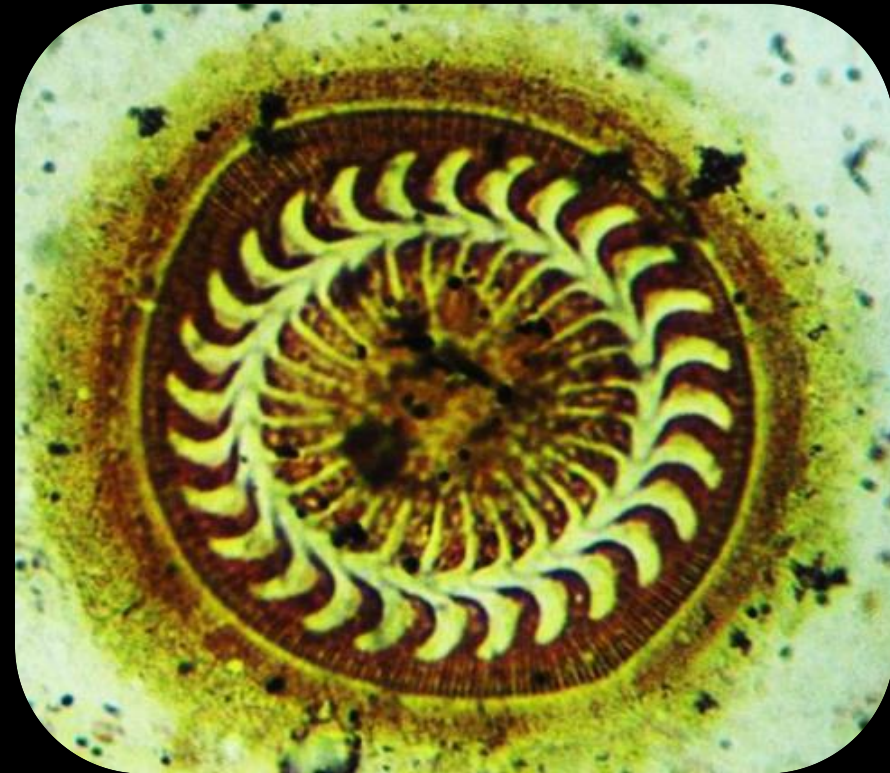
Contractile vac.

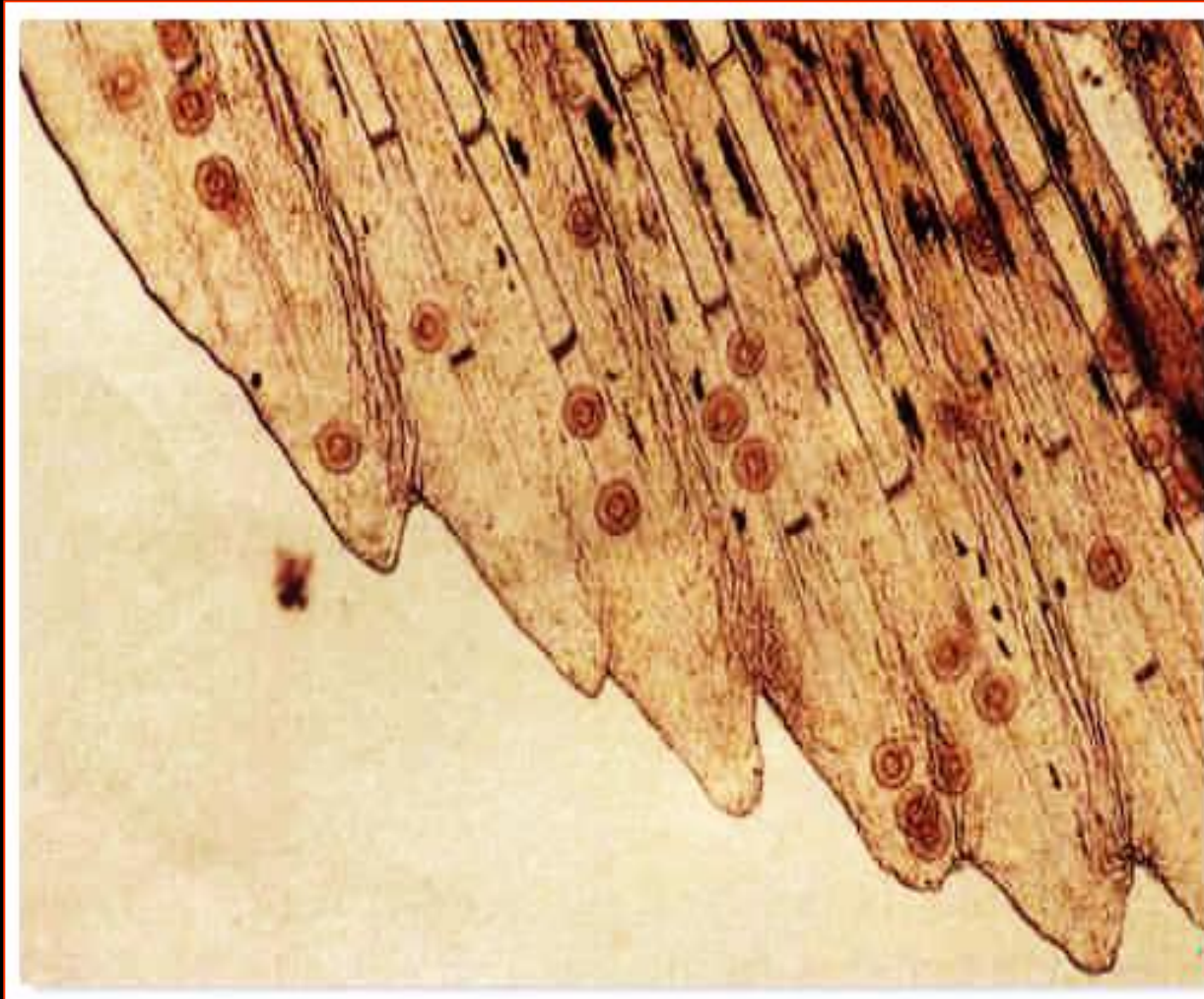
Macronucleus

Micronucleus



1-Trichodinosis





Trichodina infects the gills firstly (blood) then skin and fins

Trichodina is the most beautiful ext. protozoa

Samples should be taken from a live fish or recent dead one (20m)



Pathogenesis

Large number of the parasite infect the fish and move hardly on the fish by crawling leading to sever irritation causing

- 1- Excessive mucous secretion**
- 2- Fish scratch themselves against hard objects**
 - scale loss and ulceration**
- 3- erratic swimming behavior**
- * its feeding habits lead to epith. destruction**



Predisposing factors

1- poor water quality

2- over stocking density

3- suitable water temperature

warm temp... Trichodinosis cold temp... Chilodonellosis

Mode of infection

Direct contact with the parasite or infected fish

Source of infection

Contaminated water and infected fish



Clinical signs

1- General signs

Listlessness, weakness, loss of appetite, skin darkening, sliminess and scale loss

2- Characteristic signs

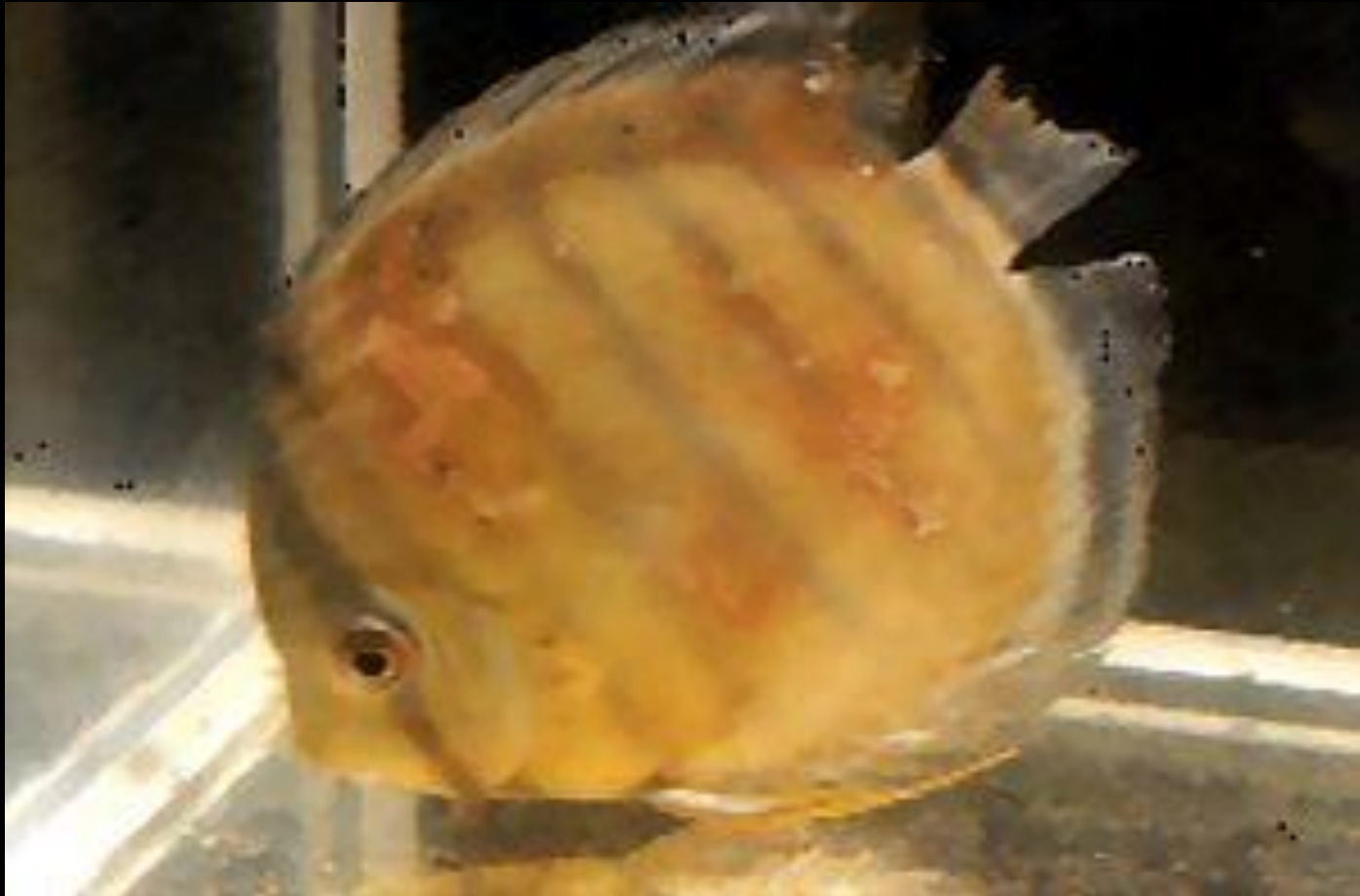
1- Respiratory manifestation

2- Signs of irritation

3- Patches of turbid mucous with congestion







Diagnosis

1-Case history

2-Clinical signs

3-Laboratory diag.

Swap or scrap from life or freshly dead fish (less than 20m)

1- wet mount

2- Stained film (Giemsa or silver impregnation)



Prevention

- 1- Avoid over feeding and over stocking**
- 2- 3 D system before stocking**
- 3- Continuous water change and flow**
- 4- Periodical parasitological exam.**
- 5- Quarantine measures**



Correct the environment and avoid the stressors during stocking (cycle)



Control & TTT

1-Managemental control

1- Change the pond water to

1-decrease ammonia or organic matter level and to improve the water quality

2-decrease the number of free swimming parasites

3-increase the level of DO



2- increase the rate of water flow to decrease the rate of attachment of the parasite to the fish body

**3- 3 D system (drainage + dryness + disinfection)
before restocking**

4- Remove the infected dead and moribund fish

5- Eradicate the amphibians (transmitter)



2-Chemical control

- 1- Na cl 0.5-1.5% 2 permanent water bath (2-3 weeks)
with few days interval**
- 2- Pot. Permang. 5-10ppm permanent bath**
- 3- Cu so₄**
- 4- Formalin (0.25mg/l)**
- 5- Malachite green (1mg/l)**



**Any treatment will not success
without environmental correction**



مع أطيّب الأمانى
والسلام عليكم ورحمة
الله وبركاته
د/محمد عبد العزيز

