Contents

Abbreviation

-O.S. ..... Oral sucker.

- Ph. ..... Pharynx.

- O. ..... Oesophagus.

- C. ..... Caeca.

- V.S. ..... Ventral Sucker.

- G.S. ..... Genital Sucker.

- S.V. ..... Seminal Vesicles.

- S.R. ..... Seminal Recepticulum.

- O. ..... Ovary.

-T. ..... Testes.

- V.F. ..... Vitelline Follicles.

-C.S. ..... Cirrus Sac.

- V.S. ..... Vaginal Sphincter.

-E. ..... Egg.

- P.G. ..... Pigment Granulues.

- R.G. ..... Refractile granules.

6- Conclusion

From the present study is concluded fresh water such as Tilapia sp , Nile air breathing cat fish and common crap are subjected to infection with metaceracariae of the worms *Heterophyes heterophyes* , *Heterophyes aequalis* , *Heterophyopsis sp.*, *Pgyidiopsis genata*, *procerovum varium* , *procerovum batillans* , *Procerovum calderoni* , *Apophallus donicus*, *Haplorchis pumilio*, *Haplorchis taichui*, *Stictodora tanayensis*, *Prophemistomum vivax* , *Prosostephanus industrius* , *Gelanocotyl milvi* , *Muehlingina lutari*, *Mesostephanus appendiculatus*, *Mesostephanus melvi*, *Mesostephanus fajardensis*, *Mesostephanus flapi*, *and Moedlingeria amphoraefromis* which were found in puppies , chicken and ducklings . These metacercariae are greater importance of zoonetic importance view that is to say can be transmitted to human being causing dangerous disease , there for this parasites being must be well controlled in order to avoid being transmission to man using several methods to kill the encysted metacercariae before consuming such fishes .

7-Recommendations

Control of fore mention trematodes in fish need special important measures as it may be transmitted to human being this measure include :

1. Preventive measures must be under taken to kill or destroy intermediate host (snails) using molluscicides .
2. Hygienic measures , Tilapia sp. , Nile air breathing cat fish and Common crap fish mentioned should be reared in clean water free from snails .
3. Dogs , cats must be forbidden from near to aqua culture .
4. Fish be consumed must be well cooked by roosting and salted fish must be kept as least 10 day before being consumed , viscera of such fishes including intestines and liver must be contaminated under restricted observation .

8-Summary

The present study was carried out to investigate the parasites encystation of fresh water fishes which act as second intermediate hosts and its role in transmission of certain helminth parasites to animals and birds.

Samples from 692 of three species of fresh water fish (Tilapia sp. , Clarias gariepinus and Common carp) . were examined from the beginning of March , 2002 till the end of February , 2003 they revealed that the total infection rates (77.6%) .

Seasonal prevalence showed that the rate of infection of encysted metacercariaein Tilapia sp, Clarias gariepinus metacercariae was during Summer (87.5%), (96.%) respectively while in Common carp was during the Spring (66.6%).

Types of encysted metacercariae were detected in the different species of fishes , belonging to Heterophyidae , Haplorchidae and Moedlingeria sp. , in Tilapia sp. in addition, Clarias gariepinus harboured Prohemistominae while Common carp harboring to Heterophyidae and Haplorchidae .

Experimental infection of some puppies, chickens and ducklings by feeding on the encysted metacercariae from the muscles of studied fresh water fishes revealed the detection of twenty adult trematodes :

Hetrerophyes heterophyes, Heterophyes aequalis, Heterophyopsis sp., Pygidiopsis genata, Procerovum varium, Procerovum batillans, Procerovum calderoni, Apophallus donicus, Haplorchis pumilio, Haplorchis taichui, Stictodora tanayensis, Prohemistomum vivax, prosostephanus industrius,

Gelanocotyle milvi, Muehlingia lutrai, Mesostephanus appendiculatus, Mesostephanus melvi, Mesostephanus fajardensis, Mesostephanus flapi* and *Moedlingeria amphoraeformis.

Lastly the histopathological studies for the studding the effect of metacercariae and adult worm on the infected tissue. The encysted metacercaria between muscle fibers showing no evidence of inflammatory reaction and surrounding by thin fibrous tissue capsule , some of these cyst represented by presence of parasitic element inside empty cavity with evidence of fibrosis. The intestinal tract of experimentally infected puppies revealed adult worms embedded between the intestinal villi suffer from extensive mucous degeneration of villi with leuckocytic infiltration.