Effect of Ivermectin in Gold Fish Infested With *Argulus* spp. and *Lernea* spp.

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Infestation with lice is a very common finding not only in terrestrial animals but also in aquatic species. *Argulus* spp. and *Lernea* spp. are the common crustacean parasites affecting fresh water fishes of many species and causing severe morbidity and mortality. The present paper records an incidence of *Argulus* spp. and *Lernea* spp. infestation on gold fish (*Carassius auratus*) and their effective treatment with ivermectin.

Case History and Treatment

Ten Fantail gold fish were purchased from the local pet shop and maintained in an aquarium at the Department of Wildlife Science, Madras Veterinary College. They were given proper aeration using electrical aerator and fed with dry commercial feed, twice a day. They were apparently normal in health with normal feeding habits and swimming. About a month later, eight out of ten fishes started showing symptoms of dullness, decreased feed intake and sluggish movement. They also exhibited lesions of echymosis on the skin as well as on the fins. The remaining two fishes were apparently normal with no abnormal symptoms. On close examination of the affected fishes, ectoparasites could be seen clinging on them with naked eyes. These parasites were removed manually, collected in 70% ethyl alcohol and subjected to microscopic examination.

Based on the laboratory findings, both the infected and non-infected fishes were treated with ivermectin. Ivermectin tablets were ground into fine powder and administered orally to the individual fish using tuberculin syringes @10 mg/kg bw as a single dose. The aquarium was completely evacuated and the tank and other inanimate objects were exposed to sunlight for 8 h and treated with Lysol (2000 ppm) to destroy the eggs and other larval forms.

Results and Discussion

On microscopic examination *Argulus* spp. and *Lernea* spp. were identified in six fish and *Argulus* spp. alone was identified in the remaining two cases. The mean number was found to be 3-5 per fish. All the infected fishes became apparently normal within 3 days of treatment with normal feeding and swimming habits. No death was recorded both in infected and non-infected fishes treated with ivermectin. *Argulus* spp. an obligate fish ectoparasite affecting many species of fresh water fish (Yildiz and Kumantas, 2002; Thilakaratne *et al.*, 2003) was found worldwide with about 150 species known at present.

Yildiz and Kumantas (*loc.cit*) reported symptoms of inappetence, poor growth and abnormal swimming in fish infested with *Argulus* spp. They also observed grayish blue point and areas of hemorrhages as noticed in the present study. They observed that the most effective treatment against *Argulus* spp. was with organophosphates. In the present study, ivermectin was found to be effective.

References
