

# Surgical Treatment for Cutaneous Tumour in Fish

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## ABSTRACT

A gold fish, *Carassius auratus* (L.), obtained from the Taraporevala Aquarium, Bombay with cutaneous tumour on the caudal peduncle and consequent difficulty in swimming, was operated to remove the tumour growth and relieve the fish. The fish was observed to be normal when kept under observation for a few days, after surgery.

## INTRODUCTION

Ichthyopathology has become an important field of study due to its increasing importance in aquaculture, food value of fish and also because of its exotic interest. Quite extensive work has been done on fish and shellfish diseases outside India, but in this country very little work has been carried out (Khan, 1922, 1939; Chidambaram, 1942; Gopalakrishnan and Gupta, 1960; Gopalakrishnan, 1961 a, b; 1963; Almedia 1962, Varma, 1965; and Pillai, 1978). While some work has been done on the microbial aspects of fish diseases, the field of fish virology remains almost untouched.

Recently, Pillai (1978) has investigated four cases of fish disease of viral aetiology.

Tumour cases in gold fish, *Carassius auratus* (L.) have been documented (Schamberg and Luke, 1922; Sagawa, 1925; Takahashi, 1929 and Montpellier and Dieuzeide, 1932) but, a cutaneous tumour in the gold fish, *Carassius auratus* documented in the present study, on the caudal peduncle appears to be recorded for the first time in this country (Mawdesley - Thomas, 1975 and Natarajan and James, 1977).

In the present investigation, the aim of the study was to observe the effects of surgery on the tumour of the fish, *Carassius auratus* obtained from the Taraporevala Aquarium, Bombay.

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## MATERIALS AND METHODS

In the month of February 1978, a gold fish, *Carassius auratus* (L.) with cutaneous tumour (Fig. 1) on the caudal peduncle resulting in difficulty in swimming was obtained from the Taraporevala Aquarium, Bombay and the fish was kept alive under suitable ecological conditions according to Pillai (1978).

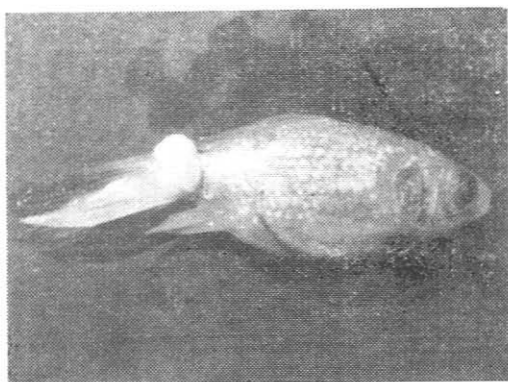


Fig. 1 *Carassius auratus* with cutaneous tumour on its caudal fin.

The fish had a total length of 11 cm. and weight 105 gm. The fish was otherwise normal in all respects such as color of the body, texture of the skin, feeding habits, nature of the gills and belly.

To relieve the fish from the tumour growth and to study the effects of surgery on this fish, it was anaesthetised and operated on (Pillai, 1978). The operation lasted for 5 minutes.

## RESULTS AND DISCUSSION

The operated tumour tissue was one gram in weight, rose coloured and

delicate in texture. The tumour was kept in liquid nitrogen for further virological studies.

After surgery, the fish recovered very slowly and in three hours it returned to normalcy. The surgery dramatically restored the ability of the fish to swim freely.

No drug was administered to the fish either to heal the operated part or to avoid post operative infections, in order to note the natural efficiency of the host.

The operation wound healed within five days.

Surgical treatment has been advised for fin rot, tail rot, and dropsy (van Duijn, 1973). In the present case, the treatment has been observed to be successful as the fish recovered completely.

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