**Abstract**

The gill which participate in many important functions in fish, such as respiration, osmoregulation and excretion. Electroplating industrial effluent nickel induced hyperplasia, multiple telangiectases (aneurysms), desquamation of the epithelial cells, complete fusion of secondary gill lamellae and congestion of blood sinuses were the significant histopathological lesions observed in the gill of *Mystus cavasius.*