

A MORPHO-HISTOLOGICAL INVESTIGATION TO THE SPINAL CORD OF THE COMMON CARP (*CYPRINUS CARPIO* L.) FINGERLINGS

Sadek A. Hussein; Alaa A. Sawad* and Azal N. B. Al-Nussair*
Dept. Fisheries and Marine Resources, Coll. Agriculture/ Histology and Anatomy
Section, Veterinary Coll.*; Basrah University. E-mail: [sdk_hussein@yahoo.com](mailto: sdk_hussein@yahoo.com)

SUMMARY

The present investigation has taken in consideration a morphological and histological examination of the spinal cord in fingerlings of the common carp (*Cyprinus carpio* L.). Specimens were collected from Basrah University fish farm at MSC. A total of 100 individuals were examined ranging in total length from 70-200 mm and in total weights from 11.0-86.3 g. The study revealed that the spinal cord joins medulla oblongata and runs through the vertebral column canal's to the end of caudal peduncle. The dorsal median sulcus runs longitudinally on the dorsal side facing at the abdominal side the ventral median fissure. The spinal cord appears round in its cross section with the transverse diameter exceeding the longitudinal ones. The gray matter have Y shape and the network structure was dominating the appearance of the spinal cord. The central canal was found to be situated at the centre of the spinal cord and surrounded with ependymal cells.

Introduction

It is obvious that vertebrates respond to environmental stimuli through sense organs, the brain and/ or the spinal cord. However, they possess more complicated nervous system compared to other creatures (4 and 10). It is well known that the spinal cord runs lengthwise of the fish in the neural canal of the vertebral column (11). The central nervous system consists of brain and the spinal cord, while the peripheral nervous system containing the cranial nerves, spinal nerves and the ganglia (9 and 6).

It has been pointed out that the spinal cord joins the medulla oblongata, that generally assigning the last portion of the brain. The former takes a tube shape and extending to the spot of caudal peduncle. The spinal cord is histologically distinguished into two distinct regions, the inner (the gray matter) and the outer (the white matter). The groove of central canal