

Morphological and histological study of the ostrich (*Struthio Camelus L.*) liver and biliary system

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SUMMARY

The peculiarity of the digestive system of the ostrich (*Struthio Camelus L.*), which is characterized by the continuous production of bile, led us to undertake macroscopical and histological studies of the liver and its biliary system, since very little bibliographic data exist on the subject. For this purpose we observed the organs of male and female ostriches 16-18 months of age, in situ, in order to describe their location, relationships and morphology. Samples of the liver were processed for observation by light microscopy; samples of the hepatoenteric duct were processed for observation by light and electron microscopy. Our findings regarding the liver revealed the presence of two lobes: a left lobe, subdivided into three lobes, and a right undivided lobe. There was no gall-bladder. The histological picture showed unlimited hepatic lobules, with hepatocytes arranged in cord-like fashion two cells thick. A large hepatoenteric duct arose from the porta hepatis, and opened into a papilla in the descending limb of the duodenum. The mucosa of the duct was lined by simple columnar epithelium consisting of cells having the same morphological cytoplasmatic features but distinguished by either a light or a dark nucleus.

INTRODUCTION

The ostrich is a very interesting avian species due to its recent utilization as food and as well as its characteristic digestive process consisting in a constant food intake throughout the day, with consequent continuous production of bile (Anderloni 1996). The aim of this study was to carry out a morphological and histological study on the ostrich liver and its biliary system in order to show some possible differences with respect to other avian species, since the bibliographical data offer only scanty informations.