

Histopathological Characteristics of Liver Fasciolosis in Camels at Nyala Abattoirs

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ABSTRACT

Hepatic fasciolosis is an important parasitic disease caused by one of two liver flukes, either *Fasciola hepatica*. The disease affects the bile ducts of cattle, sheep, goats, camels, horses and buffaloes. A slaughterhouse based study was carried out to investigate the pathological conditions of hepatic fasciolosis in camels (*Camelus deromedariius*) slaughtered in Nyala slaughter house, South Darfur State, Sudan. In this study, 5 carcasses out of 150 randomly selected carcasses inspected at postmortem, were found with liver lesions of fasciolosis. All inspected livers were grossly examined for their texture, color and presence of lesions. Post-mortem examination revealed emaciation and presence of single or multiple calcified abscesses in the liver. In addition, the liver capsules were grossly examined and several incisions were made throughout the liver tissue for parasitological infestations. Grossly, the affected liver was grossly enlarged in size, hard, dark brown in colour with fibrosis. Tissue samples were obtained from livers with macroscopic lesions, fixed in 10% neutral buffer formaldehyde, processed for routine histopathological techniques and embedded in paraffin blocks. Sections of 4.5µm thickness were stained with Haematoxylin and Eosin (H & E) and Masson's trichrome stains. Microscopically, the liver sections showed extensive proliferation of fibrous connective tissue around and the intra-hepatic bile ductules with infiltration of inflammatory cells and thickening of bile ducts walls surrounded by fibrous connective tissues, *fasciola* spp. egg and metaplasia of bile ducts with infiltration of inflammatory cells. Although no fasciola parasite or larva's were within the seen in bile ducts during gross examination of the liver, but the microscopic results showed features consistent with liver fasciolosis infections.

Keywords: *fasciolosis, camels, histopathology*