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Abstract

A study was conducted to determine the pathogenic effects of Fasciola gigantica infection on Yankasa sheep for a period of four months (April-July, 2010). Pathological lesions were observed in four Fasciola gigantica infected Yankasa sheep that died at the 10th, 11th and 12th week post-infection in an experimental infection at the Reproduction unit of the National Animal production Research institute, Shika-Zaria, Nigeria. The experiment involved twelve Yankasa sheep that were divided into two groups of infected and controls. The six animals in the infected group were each orally inoculated with 1200 Fasciola gigantica metacercariae and monitored for a period of 16 weeks. The pathogenic effects of the Fasciola gigantica infection began to manifest through death of four sheep among the infected group; with one death observed on the 10th week, two on the 11th and one on the 12th week post-infections respectively. The gross pathological lesions observed were hepatomegally, appearance of migratory tracts on the liver surface, appearance of puncture wounds through which protruded the anterior ends of the flukes to the liver surface as well as a fluid filled cavity with each having a fluid content of not less than 2.5 litres within the abdominal cavity. Other features observed grossly were marked distension of the gall bladder in which numerous flukes were present. The histopathological lesions were presented inform of intense hemorrhage both in the parenchyma and in the parasite tracts. There was fibrosis and distortion of the normal architecture of the hepatic cells. Observed clinical signs were inappetance, progressive anaemia and emaciation. There was a marked reduction in albumin and total plasma protein levels in the blood of the infected sheep compared to their controls. The findings of this study revealed that Fasciola gigantica is highly pathogenic to Yankasa sheep, therefore strategic control of the parasite and its intermediate host in the study area is recommended for improved sheep production.

Keywords: Yankasa sheep, liver, lesion

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Received: 2012/03/14

Accepted: 2012/09/20