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RESEARCH ARTICLE

Biochemical changes during fasciolosis and their control with distodin in goats

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ABSTRACT..... The present investigation was conducted to assess the clinico-biochemical changes during fasciolosis and their control with distodin package. Infected goats showed clinical symptoms such as weakness, inappetance, unthriftiness, anaemia, diarrhoea, submandibular oedema, reduced milk, meat and wool production. Biochemical parameters revealed significantly decrease in serum calcium, phosphorus, total serum protein (TSP), albumin and A/G ratio, but after treatment the values were significantly improved towards normal ranges. The values were not found to vary significantly in the infected untreated control goats on post treatment rather remained below the normal values. The A/G ratio was non-significantly improved at about normal ranges during the post-treatment observations.

KEY WORDS..... *Fasciola gigantica*, Biochemical values, Distodin, Goats

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INTRODUCTION.....

Fasciolosis, caused by *Fasciola gigantica* and *Fasciola hepatica*, is an important helmintic disease of ruminants, which causes significant losses to livestock wealth in terms of milk, meat production, draught power, reproductive performance and mortality (Kumar, 2003). In India, the disease is mostly caused by *F. gigantica*. According to FAO report (1994), about 300 million bovines are exposed to *Fasciola* infection world-wide, causing economic losses of more than US$ 3.0 billion per annum. In Bareilly, the losses were calculated to be Rs. 4.178 millions due to rejection of livers (Arora, 1967). Boray (1985) estimated the economic losses due to fasciolosis to be about US$ 2000 million per annum globally. Punchauri *et al.* (1988) reported 22.31 per cent loss of goat livers due to fasciolosis. liver disease in Indian goats is of prime concerned not only for the health of the people of a locality but also for that of the nation, out of several methods investigated for the control of flukes infection in livestock. chemotherapy is the most practical approach (Ross, 1997). Modern broad spectrum flukicides like Albendazol (Analgon, Albomar Labenzole etc.), Distodin (Pfizer), Flukin (Arex), Distonex (Nesparic), Fasinex (Cibageigy), Zani (ICI), Ranide (Refoxanide M.S.D.), Talzon (Intervet), Trodax (Rhone P.), Exinot (Cadila) and Closantel 15% are effective against all stage of flukes. Out of these distodin is broad spectrum flukicide having potential to kill majority of flukes of sheep and goats, being used extensively for parasite control due to cheapest cost, Rs. 8-10 per dose at present in Kanpur. Keeping in view, the present study was conducted to determine the biochemical alterations during fasciolosis and tried to control through new class of broad spectrum anthelminthic Distodin (*Pfizer*) in orally administration.

RESEARCH METHODS.....

In the present study, ten goats aged above 1 to 2 years naturally infected with *Fasciola gigantica* were selected on the basis of faecal egg count per gram (EPG) of faeces and randomly divided into two groups 'A' and 'B' of 5 goats each. Goats of group A were treated with Distodin @ 10 mg/kg body weight through oral route which consisted of oxyclozanaid B.P. vet supportive drugs like liver stimulants, antidiarrhoeal, mineral mixture as and when needed and the goats of group-B