

AN OUTBREAK OF ACUTE FASCIOLOSIS IN GOATS

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INTRODUCTION

Fasciolosis is a common parasitic disease of sheep and goats in Pakistan. Its prevalence has been reported from all parts of the country (Durrani *et al.*, 1981; Buriro *et al.*, 1984; Sheikh, 1984; Khan *et al.*, 1988). The disease is mostly seen in chronic form. Acute form of the disease is less common and is invariably seen in sheep. It is essentially a traumatic hepatitis produced by the migration of immature flukes in the liver parenchyma and is seen mainly towards the end of summer (Soulsby, 1982). The present report describes an outbreak of acute fasciolosis in goats on a livestock farm near Minchanabad in Bhawalnagar district.

HISTORY OF THE OUTBREAK

The outbreak was reported from a mixed livestock farm belonging to a private farmer. Livestock strength at the farm included 187 sheep, 71 goats and 5 cattle. Two hundred and seventy six cattle from the farm had recently been moved to another farm.

The outbreak started on July 24, 1996 when one goat was reported dead. In the next 9 days a total of 12 animals died due to this illness. The clinical findings, shown by the dead animals, as reported by the stock assistant, included anorexia, excessive frothing and pyrexia in all animals. A few animals had blood tinged froth. The liver was dark in colour, had blood spots and was ruptured in some animals.

The treatment given to the sick animals included antibiotics (Combiotic, Gentafer, Daxafer) analgesics (Myprason, Dipyrone) and sulphonamides (Diadin 33.33%, Trimethoprim), however, the response of animals was varied.

At the time of our visit, all animals looked healthy. Temperature of six sick goats had returned to normal after morning treatment. No external parasites or lesions were found. Clinical examination of the oral cavities of all goats revealed no lesion.

Postmortem examination was done on one dead animal. Skin had already been removed and colour of flesh was normal. Peritoneal fluid was mixed with blood. A large blood clot covered about 1/3 of liver. Two large haematomas were also seen in the liver. Liver capsule showed small perforations and sub-

capsular haemorrhages. Upon cutting, liver parenchyma showed tracts of damaged tissue. Immature and mature flukes were also recovered. Many areas of liver had necrosis and fibrosis. Extensive fibrin clots attached liver capsule to diaphragm. One small portion of one of the lobes of lung was hepatized. Small intestine had patches of enteritis. All other organs including heart, kidneys, large intestine and buccal cavity were apparently normal.

DISCUSSION

Fasciolosis is a major parasitic disease of economic importance in sheep and goats. In its chronic form the economic losses are mainly in terms of reduced weight gain, wool production and poor fertility rates. While in acute fasciolosis mortality is more common and the animals may die suddenly or within a few days of the onset of clinical signs (Soulsby, 1982). The clinical symptoms exhibited by the infested animals include blood stained froth at the nostrils and oozing of blood through anus as seen in anthrax. The pathological lesions include liver enlargement, congestion and fibrosis. The capsule is perforated and the surface may be covered with fibrinous exudate. Migrating immature flukes make numerous haemorrhagic tracts in the liver parenchyma and rupture sinusoids and even some large blood vessels. In most of the fatal cases, the peritoneal cavity contains large quantities of blood stained exudate (Irfan, 1984). The diagnosis in the present case was based on pathological lesions and recovery of immature flukes. Although no detailed study on speciation of the fluke was done, size and morphology resembled *Fasciola hepatica*. According to our information, this is the first recorded outbreak of acute fasciolosis in goats in Pakistan.

Diagnosis of acute fasciolosis under field conditions is based on clinical symptoms and typical postmortem lesions particularly on liver. However, death in some cases due to fasciolosis may be confused with bacterial infections. In the present outbreak also, some veterinarians suspected it to be a bacterial infection (enterotoxemia) and suggested antibiotic therapy. The field staff is, therefore, advised to be careful in diagnosing this infestation. The drugs indicated for its control mostly have narrow safety margin, therefore, a

slight slip in calculation of their accurate dose may result in hazards. Diamphenethide at a dose of 1000 mg/kg has been recommended as a drug of choice for controlling acute fasciolosis (Soulsby, 1982). Rapoxanide, nitroxynil and niclofolan are other anthelmintics indicated for acute fasciolosis.

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