SPECIES OF PARAMPHISTOMES (TREMATODA) FROM
BUFFALOES IN PESHAWAR REGION OF WEST PAKISTAN

I. A. YUSUF AND M. ASLAM CHAUDHRY

West Pakistan Veterinary Research Institute, Peshawar.

SUMMARY

Four species of amphistomes were recorded from buffaloes in Peshawar region. The incidence of different species was determined. The significance of amphistomes in causing disease is discussed.

INTRODUCTION

In West Pakistan paramphistomes occur as commonly in buffaloes as in cattle and some species are harboured by both these hosts. Baylis (1929) recorded Paramphistomum cervi, Cotylophoron cotylophorum, Carmyerius gregarius, Gastrothylax crumenifer, Fischoederius elongatus and Paramphistomum explanatum from buffaloes in Asiatic countries. Srivastava (1945) carried out a general survey of helminth infections of domestic ruminants in Northern India and found the amphistomes, Cotylophoron cotylophorum, Paramphistomum cervi, Paramphistomum explanatum and Gastrothylax crumenifer in varying degrees of incidence in different hosts. He also recorded that the species P. cervi and P. crumenifer were very common and widespread. Varma (1957) observed a heavy incidence of Cotylophoron cotylophorum, Calicophoron calcohorum and Gastrothylax crumenifer from buffaloes in Bihar.

This paper deals with a survey of amphistomes of buffaloes in the Peshawar Region of W. Pakistan.

MATERIALS AND METHODS

Regular visits were made to slaughter houses in Peshawar and amphistomes collected from buffaloes. The buffaloes slaughtered were either purchased from a local market or came from various parts of Peshawar region. Altogether 102 stomachs and 70 livers were examined during the period May, 1968, to April, 1969. The material examined during this survey was the contents of the rumen, the reticulum and the liver including the gall bladder. Amphistomes were picked up individually, whether lying free in the ingesta or attached to the mucous lining of the stomach and bile ducts. On collection the specimens were placed in physiological saline in labelled containers. They were transferred into AFA (Morgan and Hawkins, 1949) for overnight fixing, before being stored in 70 per cent alcohol. For examination they were stained with Semichon's carmine and Delafield's haematoxylin. They were all mounted in canada balsam after clearing in beechwood creosote for identification.
RESULTS AND DISCUSSION

Four genera of Paramphistomidae (Fischoeder 1901) were identified in this survey.

I. Genus COTYLOPHORON Stiles & Goldberger, 1910.
Species C. cotylophorum (Fischoeder, 1901)
Location: Rumen and reticulum. Immature forms were found in abomasum and duodenum.

II. Genus GASTROTHYLAX Poirier, 1883.
Species G. crumenifer (Creplin, 1847)
Location: Rumen and reticulum.

III. Genus PARAMPHISTOMUM Fischoeder, 1901.
Species P. cervi (Schrank, 1790)
Location: Rumen and reticulum.

IV. Genus GIGANTOCOTYLE Nasmrk, 1937-
Species G. explanatum (Nasmrk, 1937)
Location: Bile ducts.

In this Peshawar region of W. Pakistan, buffaloes suffering from amphistomiasis usually have a mixed infestation of several different species of Paramphistomidae. Cotylophoron cotylophorum was found to be the commonest species parasitizing buffaloes in this area. (Table 1). In a few cases a large number of immature forms were found in the abomasum and duodenum and particularly the pyloric region of the abomasum. Similar cases to these had previously been described in Assam. (Pande, 1935).

The second most common species, G. explanatum (Nasmrk, 1937) was only found in the bile ducts. As a result of infestation by these worms the bile ducts were highly congested, inflamed and oedematous; the mucous coat was covered with necrotic material and when this was washed several small necrotic ulcers were detectable on the mucous membrane.

Accepted for publication August 1970.

REFERENCES