

GASTRO-INTESTINAL PARASITES OF STRAY PIGS IN AND AROUND NAGPUR CITY

G.N. Bhangale, M.U. Bendre, M.S. Barbadikar, P.D. Jumde and D.K. Maske

Department of Parasitology,
Nagpur Veterinary College, MAFSU, Nagpur-44006

ABSTRACT

Fecal samples of 74 stray pigs were examined by standard procedures. The overall infection rate was 83.78 per cent. The eggs/ ova / larvae of *Oesophagostomum* sp. (20.27%), *Ascaris* sp. (35.13%), *Fasciolopsis buski* (13.51%), *Trichuris* sp. (8.10%), and *Taenia* sp. (4.05%) were recorded. The cysts and oocysts of *Eimeria* sp. (14.86%) and *Balantidium coli* (58.10%) were also observed.

KEY WORDS : Gastro-intestinal parasites, Helminths, Stray pigs, *Fasciolopsis buski*, *Balantidium coli*.

INTRODUCTION:

Increasing demand for pork in India for domestic consumption and also for export purpose cannot be fulfilled due to many factors which include lower productive capacity of domestic pigs, scavenging system of rearing pigs and health related problems. The heavy parasitic infections cause reduced growth rate and increased mortality percentage. Gastro-intestinal parasites of pigs had been reported from different parts of the country viz. Madras (Alwar, 1958); Marathwada (Jinklod, 2006); Madhya Pradesh (Srivastav and Shah, 1968); Andhra Pradesh (Somsundara Rao, 1965); Kerala (Thomas, 1979) and Haryana (Varma et al, 1979). There is no systemic report on parasitic fauna of pigs from Vidarbha Region of Maharashtra. The present study was planned to assess the incidence of parasites of scavenging stray pigs in and around Nagpur City.

MATERIALS AND METHODS :

Freshly collected fecal samples of all animals were processed and examined both grossly and microscopically for identification of parasitic ova on the basis of morphological criteria as described by Soulsby (1982).

RESULTS AND DISCUSSION :

About 74 fecal samples from pigs were examined, out of which 62 samples were positive for different parasitic ova / cysts. Parasitic species identified were *Ascaris* sp., *Trichuris* sp., *Oesophagostomum* sp., *Taenia* sp., *Fasciolopsis buski* and cysts of *Balantidium coli* and *Eimeria* sp. Overall incidence reported in the study was 83.78 per cent.

It was observed that three species of nematodes, two species of enteric protozoa and one species of cestode and trematode each were found prevalent in stray pigs of Nagpur. Amongst the roundworms, *Ascaris* sp. (35.13%) showed highest incidence followed by *Oesophagostomum* sp. (20.27%) and *Trichuris* sp. (8.10%). Amongst protozoan parasites cysts of *Balantidium coli* (58.10%) were found more prevalent than coccidian oocysts i.e. *Eimeria* sp. (14.86%). Incidence of *Taenia* sp. was recorded as 4.05% while that of *Fasciolopsis buski* was 13.51 per cent. Mixed infection with two or more species of enteric parasites was recorded in 42 (56.75%) pigs. Maximum four different species of gastro-intestinal parasites were recorded from a single animal.

All the helminthes and protozoa recorded in present study were also reported by many workers from different regions of the country viz. Mizoram (Borthakur et al., 2005); Assam (Endjet, 1964 and Choudury et al., 1988); West Bengal (Dutta et al., 2005); Marathwada region of Maharashtra (Jinkalod, 2006); Meghalaya (Rajkhowa, 1996); Jharkhand (Sanjeev Kumar et al., 2002) and Bihar (Sinha, 1967).

The Incidence of *Fasciolopsis buski* was not reported in earlier studies from Maharashtra but in the present study around 13.51% incidence of this fluke of zoonotic importance is recorded. The epidemiological significance of this fluke from the public health point of view has already been described by Chandra, (1984) and Mutalib and Islam (1975).

The higher incidence of *Balantidium coli* (58.10%) found in the present study was in accordance with Choudhury, et al., (1998).

ACKNOWLEDGEMENT :

Authors are thankful to the Associate Dean Nagpur Veterinary College, Nagpur for providing necessary facilities and help for the experiment.

REFERENCES :

- ALWAR, V.S. (1958), Indian Vet. J., **35**: 112-116.
- Borthakur, S.K., S. Rehman and K. Sharma (2005). Abstr. XVI National Congress of Veterinary Parasitology.
- Chandra, S.S., (1984). Indian J. Med. Res., **79**: 55.
- Choudhur, R., P.C. Sarmah and M.R. borkakoty (1998). Indian Vet. J., **75**: 354-355.
- Dutta, J.D. Ghosh, N.K. Sasmal and G.S. Mukherjee (2005). J. Vet Parasitol., 19: 23-26.
- Endjet E. (1964). Indian Vet. J., **41**: 538-542.
- Jinkalod (2006). Prevalence of endoparasites in stray pigs in Parbhani region.
- M.V.Sc. Thesis submitted to Maharashtra Animal and Fisheries sciences Sciences University, Nagpur.
- Mutalib, M.A. and Islam, N. (1975) Jou. Trop. Med. Hyg. **73** : 133.
- Rejkhowa, C (1996) J. Vet Parasitol. **10**: 91-93.
- Sanjeev Kumar, K.D. Parasad and S.K. Singh (2002). Indian J. Ani. Sci., 72: 35-37.
- Sinha, B.K. (1967). Indian Vet. J., **44**: 119-128.
- Soulsby, E.J.L (1982). In Helminths, Arthropods and Protozoa of Domesticated Animals. 7th Edn. Bailliere Tindall and Cassell Ltd. London.
- Somsundara Rao, G. (1965). Indian Vet. J., **44**: 538-540.
- “Srivastava, H.O.P. and H.L. Shah (1968). Indian Vet. J. **45**: 204-212.
- Thomas, P.C. (1979), M.V.Sc. Thesis submitted to Kerala Agri. University.
- Varma, S., S.S. Lal and P.D. Malid (1979), Indian J. Parasitol., **3**: 45-47.

