Short communication

A NOTE ON THE OCCURRENCE OF PARAFILARIOSIS IN A NON-DESCRIPT BULLOCK

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ABSTRACT

Parafilariosis, a parasitic infection in cattle caused by *Parafilaria bovicola*, is characterized by nodules and bleeding points. It causes cutaneous bleeding of live cattle and bruise-like lesions in the subcutaneous and intramuscular surface of the affected carcasses (Bech-Nielsen *et al*., 1982). This condition is sporadically reported in India. Occurrence of parafilariosis in a non-descript bullock and its successful treatment are reported.

Key words: Bullock, Non-descript, subcutaneous nodule, parafilariosis

An eight year old non-descript bullock was brought to the Veterinary Dispensary, Kelur with a history of emaciation. Clinical examination revealed multiple spherical to oval subcutaneous nodules on the ventral surface of the body measuring 2 to 3 cm in diameter or length (Fig.1). Smears from fine needle aspiration (FNAB) biopsy material were prepared and stained by Leishman and Giemsa (L&G) stain.

Microscopical examination of the Fine Needle Aspiration Biopsy cytological smears revealed numerous microfilariae (Fig.2,3). Based on the morpholohgical characters of the parasite, it was confirmed as *Parafilaria bovicola*. The anterior end of the microfilariae was rounded and the posterior end was curved and pointed which were in agreement with the earlier report of Raghorte *et al*. (2006). The length of the microfilariae seen in the present case ranged from 169.7 to 171.0 mm (Mean-170.35 mm) and width of the parasite from 10.9 to 14.28 mm (Mean-12.59 mm).

The microfilariae were unsheathed, having nerve ring at 55 mm, excretory pore at 87 mm and anterior pore at 121 from anterior end. Lahra *et al*. (1964) recorded the length of the parasite as 164.5 to 172.6 m (Mean of 169.2 mm) and width as 10 to 13 mm with the mean of 12 mm which were in accordance with our present report. While Niilo (1968) reported a length of the parasite as 154 to 215 mm and width as 9 to 13 mm. Filariads worms are prevalent mostly in tropical countries including India. It seldom causes mortality in animals yet the economic losses due to these parasites are alarming. In the present case, emaciation and reduced working capacity were observed which

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Fig.1. Non-descript bullock-Skin-Subcutaneous nodules

Fig.2. Non-descript bullock- Biopsy smear-Presence of microfilariae of *Parafilaria bovicola* parasites-Unsheathed. A. Nerve ring. L&G Stain Bar 10 mm

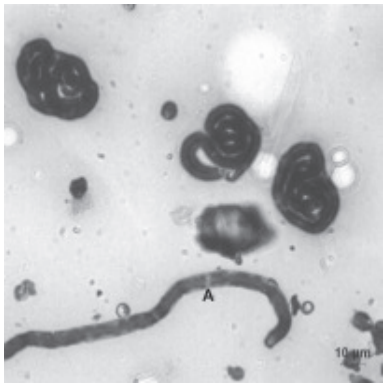
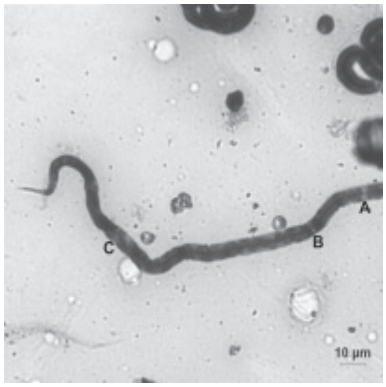


Fig. 3 Non-descript bullock- Biopsy smear-Presence of microfilariae of *Parafilaria bovicola* parasites. A. Nerve ring B. Excretory pore C. Anterior pore. L&G Stain Bar 10 mm



were in agreement with the report of Gogoi (2002).

The bullock was treated with Helmonil (Alved Pharma) at the rate of 7.5 mg/kg BW intramuscularly in a single dose. After treatment, the nodules disappeared and the working capacity of the bullock improved. However, Neomec (Ivermectin) at the rate of 200 mg/kg BW subcutaneously as single dose with liver tonics was also used in effective treatment of *P. bovicola* in buffaloes (Raghorte *et al*., 2006). Parafilariosis was recorded previously in Orissa in buffaloes with 2.9 per cent infection (Patnaik, 1989). The occurrence of *P. bovicola* infection in the animal could be due to fly menace caused by *Musca* sp. (Yadav *et al*., 2007).

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