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Therapeutic management of *Toxocara vitulorum* in a Murrah buffalo calves: A case report

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Abstract
Five Murrah buffalo calves from AAU-Zonal Livestock Research Station, Mandira, Murrah buffalo farm were observed with history of anorexia, weak and diarrhoea. The faecal samples were collected for examination of parasitic infestation. After examination of faecal sample *Toxocara vitulorum* eggs were detected. Affected calves were treated with Tablet Fenbendazole @ 5 mg/kg body weight, Bolus Biotrim-DS @ 1 bolus/100 kg body weight, Inj. Ringer's lactate solution I/V, Inj. Tribivet 2 ml I/M. On the next day of treatment, the animal was voided life parasite through faeces. All calves were recovered after 7 days of treatment.

Keywords: Murrah buffalo, *Toxocara vitulorum*, Fenbendazole, Mud white colour faeces

Introduction
Parasitic diseases of dairy animals are one of the major problems in animal health and production performance. Ascariasis is one of the most common gastrointestinal parasitic diseases of buffalo calves that are caused by *Toxocara vitulorum*. *Toxocara vitulorum* is a round worm located in small intestine. The parasite belongs to phylum Nematoda and family Taxocaridae. Calves with less immunity and poor nutrition are mostly infected and result in fatalities (Starke-Buzetti, 2006) [7]. Animal retarded growth, poor milk and meat production, poor quality of hides are harmful effects of parasitic infections in bovines (Sharma *et al*., 1984) [6]. *Toxocara vitulorum* is a major cause of calf mortality and economic losses to livestock farmer (Islam *et al.*, 2005) [4]. *Toxocara vitulorum* prepatent period will be about 3-4 weeks in calves. After 8 weeks, most infected calves are able to clear the parasite due to strengthened and acquired immunity (Roberts, 1990) [5]. *Toxocara vitulorum* larvae migrated to lung, liver, kidney, mammary glands, trachea and cause major damage to calves and finally reach to small intestine became adult and lay eggs and which manifested by diarrhea, poor growth rate etc. (Ahmed *et al.*, 2016) [1].

Case History and Observations
Five Murrah buffalo calves aged between 2-3 months old were affected with Ascariasis in AAU-Zonal Livestock Research Station, Mandira, Murrah Buffalo farm. The calves were anorectic, weak, diarrhoea, dull and depressed, pale conjunctival mucous membrane with normal body temperature. From, anus directly voided life *Toxocara vitulorum* worm (Figure 1). The faecal samples were directly collected from the rectum. The colour of the faeces appeared as mud white colour (Figure 2) with foul smelling odour. The faecal samples were processed as per routine procedure and screened for the presence of parasitic eggs. Based on history, clinical sign and faecal sample examination it was confirmed as a case of toxocariosis.

Fig 1: Voided life *Toxocara vitulorum* worm.

Fig 2: Mud white colour faeces voided by calves

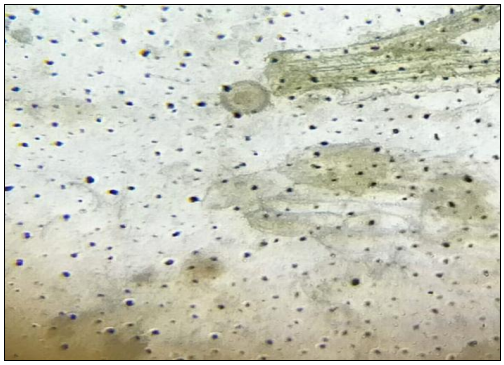

Fig 3: *Toxocara vitulorum* egg

Treatment and Discussion

The analysis of faecal sample revealed presence of *Toxocara vitulorum* egg (Figure.3). The affected calves were treated with tablet Fenbendazole @ 5mg/kg body weight, Bolus Biotrim-DS @ 1bolus/100 kg body weight, Inj. Ringer's lactate solution I/V, Inj. Tribivet 2 ml I/M. The worms were expelled through faeces on the 2nd day of treatment. The efficacy of fenbendazole against *Toxocara vitulorum* infection in calves has reported by Hafiz *et al*., 2010, Davila *et al.*, 2010 [3, 2]. There was no expulsion of worms in the faeces from fourth day onwards. The faecal samples were examined after 7 days post-treatment. Faecal samples examination revealed no *Toxocara vitulorum* egg. The present study concluded that occurrence of Ascariasis in suckling buffalo calves may be associated with transmission of infective larvae from dam either transplacentally or transcolostrally.

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References

1. Ahmed R, Wani Z, Allaie I, Bushra M, Hussain H. *Toxocara vitulorum* in suckling calf: A case study. Journal of Parasitic Diseases. 2016;40(4):1330-1331.
2. Davila G, Irsik M, Greiner EC. *Toxocara vitulorum* in beef calves in North Central Florida. Veterinary Parasitology. 2010;168(3-4):261-263.
3. Hafiz A, Tufani NA, Makhdoomi DM. Therapeutic efficacy of ivermectin, fenbendazole and albendazole against ascariasis in crossbred calves. Indian Journal of Field Veterinarians. 2010;6(2):21-22.
4. Islam SA, Rahman MM, Hossain MA, Chowdhury MGA, Mostofa M. The prevalence of toxocariasis in calves and efficacy of some anthelmintics. Bangladesh Veterinarian. 2005;22:78-82.
5. Roberts JA. The life cycle of *Toxocara vitulorum* in Asian buffalo (*Bubalus bubalis*). International Journal for Parasitology. 1990;20(7):833-840.
6. Sharma MC, Pathak NN, Hung NN. Influence of parasitism on growth and milk production of Murrah buffaloes. Indian Journal of Veterinary Medicine. 1984;4:97-100.
7. Starke-Buzetti WA. In: Toxocara- The Enigmatic Parasite. CABI publishing, CAB International. UK; c2006. p. 260-277.