

***Escherichia coli* associated diarrhoea in a wild peafowl *Pavo cristatus* in Jammu**

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Bacterial infection caused by *Escherichia coli* occurs frequently in wild birds which may be either gastrointestinal or respiratory in nature. *E. coli* is a common bacterial flora in the gut of many wild birds. It can become pathogenic during stress conditions. *E. coli* associated gastrointestinal infection in birds produces inappetence, loss of body condition, severe vomiting, diarrhoea followed by death due to dehydration. The present communication reports incidence of multi drug resistant *E. coli* associated diarrhoea in a wild peafowl (*Pavo cristatus*) in Jammu.

An adult male peafowl at the Mini Zoo in Manda, Jammu, was suffering from profuse watery diarrhoea for four days and finally succumbed. Postmortem study did not reveal any conclusive diagnosis due to spoilage of carcass. Intestinal contents were subjected to bacteriological study and revealed the presence of *E. coli*. Further, serotyping of the isolates (O9) at Central Research Institute, Kasauli (H.P.) established the presence of three different serogroups, viz., O20, O60 and O162.

The isolates were subjected to antibiotic sensitivity assay by disc diffusion method (Bauer *et al.*, 1986) and found organisms resistant against

Ampicillin, Kanamycin, Chlortetracycline, Nalidixic acid, Trimethoprim, Streptomycin, Gentamicin, Bacitracin, Chloram-phenicol, Tetracycline, Metronidazole, Enrofloxacin and Neomycin. Only Polymyxin B was recorded as moderately sensitive.

It is established fact that wild birds and rodents act as a bridge between aquatic and farm animals for transfer of disease causing organisms (Nielsen *et al.*, 2004). There was no history of antibiotic therapy of the bird before suffering from this infection. This multi drug resistant *E. coli* indicates the transmission of pathogenic *E. coli* from farm environment. Although no systematic study has been conducted to record the epidemiology of transmission of the organism to the wild peacock, isolation of such type of organism is an alarming threat to the wild animal population.

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A note on an outbreak of foot and mouth disease in captive Nilgai *Boselaphus tragocamelus*

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plus web supplement of 1 page

Foot and mouth disease (FMD) is an extremely contagious and rapidly spreading acute viral disease affecting a wide variety of domestic and wild even-toed ungulates. The FMD has been well recognized in free-living wildlife (Sinha, 1976) and is well known in captive ruminants particularly in Nilgai (Paikne *et al.* 1976; Ahuja *et al.* 1985; Singh & Gupta, 1988). The present communication reports FMD in Nilgai *Boselaphus tragocamelus* kept in captivity at the S.V. Zoological Park, Tirupathi.

One Nilgai carcass was received everyday for a period of one week from the S.V. Zoological Park, Tirupathi for postmortem examination. As per history, clinically all these animals exhibited signs of dullness, depression with drooling, salivation, anorexia and lameness. Similar observations were also recorded by Mukhopadhyay *et al.* (1975) and Dutt *et al.* (1981). Postmortem examination revealed vesicles and ulcers on gums (Image 1^w), lips, tongue, inter digital spaces and around nails of feet. Cyanosis of conjunctiva and engorgement of subcutaneous blood vessels in all animals were observed. Severe pulmonary congestion with blotchy areas of haemorrhages in all the lobes of lungs was conspicuous. Patchy areas of haemorrhages on epicardium and endocardium, kidney and intestine were also observed. The lymph nodes were swollen and haemorrhagic. Similar findings were also reported by Dutt *et al.* (1981); Sharma *et al.* (1983); Mukhopadhyay *et al.* (1975). Representative tissue pieces were collected in 10% formal saline and processed and stained by

routine conventional methods. Vesicular epithelium from gums and tongue was collected in 50% glycerol saline and sent for virus isolation to Veterinary Biological Research Institute (VBRI) Hyderabad.

Histologically severe congestion of parenchymatous organs was noticed. Congestion and edema in lungs, haemorrhages in heart, kidney, intestine and lymphnodes were also noticed. Vesicles and ulcers were noticed on oral mucosa and tongue.

Though the disease was highly contagious, surprisingly it was confined to the Nilgai herd only and no other ungulates showed clinical signs. FMD virus 'O' type was isolated and identified from the infective material collected from the oral lesions in the affected Nilgais. The same type of virus was also isolated and identified from the affected cattle surrounding the Zoo during the same period.

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^w See Image 1 in the web supplement at www.zoosprint.org

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