Death Due to Severe Enteric Infection in Kid Suffering from Colibacillosis: A Case Study

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ABSTRACT
Death due to severe colibacillosis in a kid was reported in the present case study. Precise diagnosis was performed microbiologically from the intestinal contents collected during the post-mortem examination.

Key words: Colibacillosis, Kid

INTRODUCTION
Sudden death of neonates in small ruminants is a serious problem which affects the financial status of the animal owners [1]. The death can either be due to microbial or non-microbial origin. The animals residing in stressful environmental condition are prone to succumb to death that of microbial origin. Sheep have got more natural resistance than goats. Among the different causes of microbial death in small ruminants colibacillosis plays a significant role. It is caused by pathogenic serotypes of *Escherichia coli* [2,3]. It causes severe enteric infection resulting in whitish diarrhea. The present case describes the diagnosis of colibacillosis from the postmortem sample of doe and prophylactic measures advised for rest of the animals of the same farm.

Case history and observations
A two month old male kid of Sirohi breed brought to the TVCC of Arawali Veterinary College with the history of anorexia and whitish-greyish diarrhea. During the course of treatment the animal succumbed. During the process of history taking it was revealed some other animals in the farm of the owner were showing similar clinical symptoms. Then with the consent of the owner the postmortem of the animal was conducted. The viscera were congested. Petechial hemorrhage and yellow colored fluid was found in intestine upon necropsy. No other visible anomalies observed during the course of post mortem. The intestinal swab was taken in sterile way for microbiological culture.

MATERIALS AND METHODS
Isolation of *E. coli* was attempted from the intestinal content collected during post-mortem examination by following the procedure of Finegold and Martin [6] with certain modifications at the Department of Veterinary Microbiology, Arawali Veterinary College, Sikar. Swabs were put in 10 ml nutrient broth for isolation of *E. coli*. These were then incubated at 37°C for 24 h. After incubation, one loopful of culture was inoculated into Mc Conkey Lactose agar plates (MLA) and incubated at 37°C for 24 h. Inoculated plates were incubated for 48 h. Typical large (2-3 mm) lactose fermenting pink colonies on MLA plates
were obtained. Gram’s staining was performed to reveal Gram negative microorganisms. Then streaking was done on Eosin-methylene blue (EMB) agar plates. Colonies which showed characteristic metallic sheen were suggestive of \( E. \) coli. The colonies were studied on the basis of morphology, Gram’s staining and cultural characteristics [4].

DISCUSSION

Diarrhea is caused by many reasons like bacteria, virus, parasites and diet [7]. Colibacillosis is the common cause of death in kids in India [8]. In the present case the death was confirmed due to intestinal \( E. \) coli infections which might be due to its intensive proliferation in the gut as compared to other microorganisms [9]. Pink colour colonies in MLA and Green Metallic sheen in EMBA confirmed the presence of E. coli which is similar with the findings of Wani et al. [10].

Preventive measures advised

- A course of Ceftriaxone with Tazobactum @10mg/ kg body weight/animal is recommended to be administered for five days.
- Vitamin B complex along with clean drinking water should be provided.
- Diseased animals should not be allowed to mix in the existing healthy herd.
- Optimum mother’s milk should be provided to the kid. Milk overfeeding should be avoided.
- Environment of the farm should be kept clean and proper hygiene to be maintained.
- Animal excretions and secretions should be disposed of properly.
- The dead animals should be cremated as quickly as possible.

Summary

After the treatment, no further mortality was observed in the farm.

REFERENCES