

Case Study

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Traumatic Reticulopericarditis in Goat – An Unusual Case Report

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ABSTRACT

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In this study, traumatic reticulopericarditis was described in goat. Clinically, animal exhibited poor body condition characterised by anaemia, dehydration, weakness and recumbency. At necropsy; ascites and fibrinous pericarditis were observed. There was hepatomegaly, cardiomegaly and fibrinous material in abdominal fluid. In the pericardial sac, fibrinopurulent fluid (fibrinous pericarditis) was observed. A 6 cm needle was found in reticulum piercing pericardium through diaphragm. Microbiological examination of pericardial fluid revealed *E.coli* and *Streptococcus* organisms.

Introduction

Traumatic reticulopericarditis is widely seen in mature dairy cattle, occasionally in beef cattle, and rare in sheep and goats (Maddy, 1954, Sojka *et al.*, 1990). The condition was mostly due to swallowing of small sharp metallic objects like nail, piece of wire, or needle which may penetrate reticulum and further extend to pericardium through the diaphragm (Brown *et al.*, 2007 and Cevik *et al.*, 2010). The blunt objects causing no perforation might remain in the reticulum for some time without causing any harm (Brown *et al.*, 2007). However, sharp objects which pass through the reticulum can cause

bleeding, abscess and adhesions in surrounding tissues and organs (Maddy, 1954 and Braun *et al.*, 2002.). Objects which proceed in a cranio-ventral direction may cause pericarditis by perforating the diaphragm or the pericardium and eventual death. The present study was identified as a case of traumatic reticulopericarditis in a nondescript female goat which is unusual.

Case History and observations

A 3-year-old nondescript female goat (Case No: 943/07 dated: 23.07.2014) was presented to the Department of Teaching Veterinary Clinical Complex (TVCC) with the history of

not taking feed and water properly, passing hard faeces and parturient 6 days before. Clinically, the body condition was poor, dehydrated and anaemic. The rectal temperature and heart rate were 98.7°F and 126/min respectively with abdominal respiration and pale conjunctival mucous membrane. Rumen was hard with weak motility. Superficial lymph nodes (prescapular and prefemoral) were swollen. On blood examination, haemoglobin content was 2g% and before treatment, animal died.

Necropsy findings

The carcass was referred to the Department of Veterinary Pathology and registered for post-mortem examination (PM No: 37/path/14-15

dated: 23.07.2014). The body condition was moderate and on opening the skin, the gelatinization of subcutaneous fat was noticed. Yellowish ascitic fluid with fibrin clots were observed in the abdominal cavity. Liver was greatly enlarged. A 6 cm needle was found in the reticulum piercing the pericardium through the diaphragm (Fig. 1). Heart was greatly enlarged. Pericardial sac was filled with thick fibrinopurulent fluid (Fig. 2). Pericardium was thickened with presence of lot of fibrin giving rise to “Shaggy heart” or “bread and butter appearance” or “cor-rugosum”. On microbiological examination, pure culture of *E.coli* and *Streptococcus* organisms were recovered from pericardial fluid.

Fig.1 A 6 cm rusty sharp metallic needle recovered from the reticulum



Fig.2 Traumatic pericarditis with fibrino- Purulent fluid in pericardial sac



Results and Discussion

Traumatic reticulopericarditis develops as a consequence of perforation of the reticulum by sharp metallic foreign bodies like needle. The animal in the present case gave birth 6 days back and hence pregnancy and/or parturition seemed to be important in the development of the disease as earlier reports implied (Cevik *et al.*, 2010). Thickening of pericardium with thick fibrinopurulent fluid in pericardial sac was evident as in earlier reports (Sojka *et al.*, 1990 and Akkoc, 2007). *E.coli* and *Streptococcus* organisms were potential causes of infection. *Archanobacterium pyogens* was also stated in earlier report (Akkoc, 2007). The prognosis for traumatic reticulopericarditis and peritonitis is poor and the disease generally results in death which was in agreement with previous literature (Braun *et al.*, 2002 and Cevik *et al.*, 2010). Although traumatic reticulopericarditis is known as cattle and buffalo disease, it is rarely observed in goats due to their elegant feeding habit. In spite of rareness of this condition in goats, it was considered as a potential risk of death.

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