

RECURRENCE OF RETICULO-DIAPHRAGMATIC HERNIA IN A PREGNANT MURRAH BUFFALO

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ABSTRACT

This short communication describes the recurrence of diaphragmatic hernia in a pregnant water buffalo. The buffalo had been operated for correction of diaphragmatic hernia about 15 months back. The recurrence was attributed to weakening of diaphragm due to foreign body syndrome which got aggravated by increased intra-abdominal pressure due to pregnancy.

Keywords: *Bubalus bubalis*, buffaloes, recurrence, diaphragmatic hernia

INTRODUCTION

Diaphragmatic hernia is the passage of abdominal viscera into the thoracic cavity through a congenital or acquired opening in the diaphragm. Herniation of reticulum through diaphragm constitutes the reticulo-diaphragmatic hernia (RDH). It is a chronic disease in buffaloes, observed mostly in adult animals that are either in their late gestation or have recently calved (Sahu *et*

al., 2003). Higher prevalence of RDH in buffaloes, as compared to cattle, has been attributed to the lesser collagen content, elasticity, and vascularity of buffalo diaphragm (Singh *et al.*, 2006). The recurrence diaphragmatic hernia in bovines is a rare event. The present article reports a rare case of recurrent diaphragmatic hernia in a buffalo.

CASE HISTORY AND OBSERVATIONS

An adult 8-year-old Murrah buffalo was admitted to the Teaching Veterinary Clinics of Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab in the year 2011. The buffalo had recurrent tympany, inappetance and scanty defecation from last 20 days. The water intake had reduced from last 5 days and the buffalo was anorectic from 2 days. The buffalo was approximately 9 months pregnant. There was a history of fever and anorexia (about 4 weeks back) which responded to antibiotic and symptomatic treatment. According to the owner the animal had been operated for diaphragmatic hernia, 15 months back. At the time of previous hernioraphy the

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buffalo had developed clinical signs of the disease about 15 days after parturition.

Clinical examination revealed moderate distension of left paralumbar fossa and both the ventral quadrants of the abdomen. The buffalo was dull and eyes were sunken indicating signs of dehydration. The mucous membranes and lymph nodes appeared normal. The respiration rate (24 per minute), heart rate (74 per minute) and rectal temperature (100.8°F) was within normal reference limits. The rumen was mushy in consistency and had normal motility (3 per 2 minutes). On auscultation reticular sounds were audible at 5th

ICS on right side at the level of elbow, heart and respiratory sounds were normal.

Systemic rectal examination was carried out as described earlier (Hussain and Uppal, 2012) which revealed scanty pasty faeces, distended mushy rumen and normal intestines. Lateral radiograph of reticular area revealed a honey comb like structure cranial to the diaphragm containing metallic foreign bodies and metallic densities (Figure 1). Surgical correction is the usual method of handling hernia cases but the owner was not willing for surgery and sold the animal for slaughter.

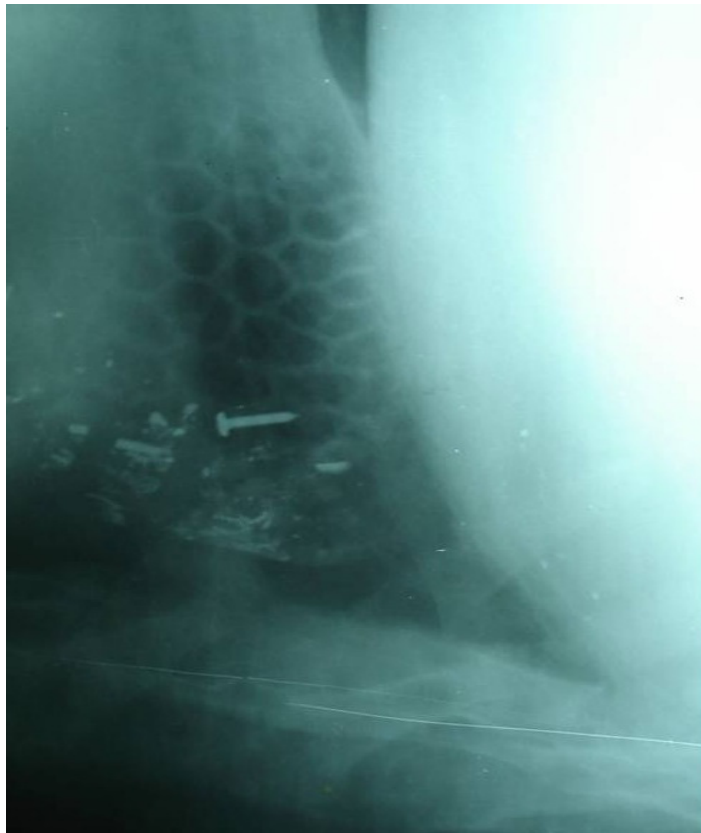


Figure 1. Lateral radiograph of reticulum showing honey comb pattern in thoracic cavity along with metallic foreign bodies, suggestive of reticulo-diaphragmatic hernia.

DISCUSSION

The present report is an interesting case of recurrent RDH in an adult Murrah buffalo. The clinical findings were similar to earlier reported findings of RDH in buffaloes (Abdelaal *et al.*, 2014). On clinical examination, we suspected RDH but we focused on TRP rather than DH because the buffalo had already been treated for RDH, and we did not expect recurrence of hernia at the first instance. The clinical examination findings suggestive of RDH were recurrent tympany, mushy rumen consistency and reticular sounds at 5th ICS. The distension of ventral abdomen quadrants was attributed to advanced pregnancy and that of left dorsal quadrant to ruminal tympany. In present case, the foreign body syndrome could have resulted in weakening of diaphragm and the pregnant uterus may have played a contributing role. The main cause of diaphragmatic hernia in buffaloes has been reported to be foreign body syndrome while other conditions that increase intra-abdominal pressure, for example, ruminal tympany, violent fall, advanced pregnancy, parturition process and straining due to any reason could act as an exciting factors (Singh *et al.*, 2006). Athar *et al.*, (2010) concluded that ultrasonography was more accurate than radiography in the diagnosis of diaphragmatic hernia in cows and buffaloes. However in present case the diagnosis was straight forward, on the basis of radiographic findings.

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