

VENTRAL HERNIA IN A CROSSBRED COW – A CASE REPORT

Mahesh V¹, Kamalakar G², Varun Sastry*³ and Ashok H

¹Assistant Professor, ²PhD Scholar, ³PG Scholar, ⁴PG Scholar

Dept of Veterinary Surgery and Radiology,

Veterinary College, Hebbal, Bangalore – 560024

E-mail: varunas3@gmail.com (*Corresponding Author)

Abstract: A six year old Holstein Friesian Crossbred cow was brought with the history of a melon sized mass on the left cranio-ventral aspect of the abdomen since 10 days. Physical examination revealed a soft fluctuating mass and the hernial ring on palpation. Herniorrhaphy was performed under local analgesia using Polyglactin 910 size 2 in simple interrupted pattern and skin was closed in horizontal Mattress pattern using nylon size 2. Post operatively, antibiotics and analgesics were administered and the surgical wound was cleaned and dressed on alternate days. The animal showed complete recovery 15 days later without any complications.

Keywords: Ventral Hernia, Herniorrhaphy.

INTRODUCTION

One of the most common consequences of trauma to the abdominal cavity is hernia of the viscera through break in the abdominal muscles leading to enterocele. The condition is more commonly observed in late pregnancy and periparturient period. Ventral hernia is commonly seen along the costal arch, high or low in the flank, between the last few ribs or in the ventral abdominal wall near the mid line (Sankar et al., 2010) In such animals, a mass is characteristic which can be noticed either on the left or right side depending on the location of trauma and the hernial sac may include intestinal loops, mesentery or even the uterus. According to Radha Krishnan et al (1993), Ventral hernias occur generally as a result of external forces or trauma to abdominal wall. This paper presents the surgical management of ventral hernia in a cow.

CASE HISTORY AND OBSERVATIONS

A six year old Holstein Friesian crossbred cow, which had parturited to a female calf 2 months back was presented with a history of melon sized distended mass (**Fig. 1**) the left cranio-ventral abdomen after a fall into a ditch 10 days ago. On palpation of the mass, no significant structures could be felt but an extended hernial ring was palpated. On clinical examination, the temperature, heart rate and respiration were within the normal range. Micturition and evacuation of faces were normal but the appetite and milk yield had reduced. The case was

diagnosed as Ventral Hernia based on the clinical examination and it was subjected to surgical correction by herniorrhaphy

TREATMENT AND DISCUSSION

The caudo-ventral thoracic region on the left side of the abdomen was prepared aseptically. The cow was administered preoperative antibiotic Inj. Streptopenicillin @20,000units/Kg BW IM. Preemptive analgesia was provided by Inj. Meloxicam @0.3mg/kg BW IM. Inj Xylazine @0.1mg/kg was administered as a sedative. Local analgesia was performed by making a ring block around the hernial sac using 20ml of 2% Lignocaine hydrochloride. The cow was controlled in right lateral recumbency with its forelimb stretched cranially and skin incision was made directly on the hernial mass after palpating the hernial ring. Careful dissection of the subcutaneous tissue was done to visualize the hernial sac and ring (**Fig. 2**). The contents of the hernial sac was found to be omentum which was returned into the abdominal cavity after rinsing with Normal Saline. The edges of the hernial ring was freshened using a scalpel blade. The Hernial Ring along with the peritoneum was sutured using Polyglactin910 size 2 in simple interrupted pattern. The subcutaneous tissue and fascia was sutured using Catgut size 2 in simple continuous pattern (**Fig. 3**). The skin was sutured using Nylon suture of size 2 in Horizontal Mattress pattern (**Fig. 4**). The surgical wound was cleaned and dressed. The cow received postoperative analgesics and antibiotics for 5 days and wound dressing was carried out till the surgical wound completely healed 15 days post surgery.

Hernia is a bulge of skin contain material of a body cavity pass through a weak spot of the body wall. Ventral hernia occurs as a result of external forces or blunt external forces or trauma to abdominal wall (Radhakrishnan et al., 1993), automobile accident (Vijayanand, 2009), weakening of the abdominal musculature or rupture of prepubic tendon (Arthur, 1989). Ventral or lateral hernia is commonly seen along the costal arch, high or low in the flank between the last few ribs or in the ventral abdominal wall (Berge and Westhues, 1966). In the present case, the hernial mass was present in the caudal ventral thoracic region between the last few ribs. Hernias have several deleterious effects, such as lowering the productivity and reproductivity of the affected animals (Das et al., 2012) and as a justification to this statement, even in the present case, one of the complaints of the owner was drop in milk yield. Presence of yellow cheesy material ie fibrin clots represent the chronicity of the hernia and adhesions between hernial contents. If the Hernial contents involve intestines and are voluminous, edematous and congested, and devitalized, the necrosed part of intestine is removed and healthy part of intestine is anastomosed by inversion suture pattern (P Vidyasagar et al, 2010), but in the

present case, there was no evidence of adhesions between the hernial contents which included only the omentum and no intestinal loops. Hence it was possible to return the hernial contents easily. For the purpose of sedation, either xylazine or triflupromazine has been used. Xylazine hydrochloride (0.1 mg/kg body weight) was administered by J Khurma et al (2016) where as Triflupromazine hydrochloride @ 0.05 mg/kg body weight was given intramuscularly by Vidyasagar et al (2010). In the present case xylazine hydrochloride was administered intramuscularly @ 0.1 mg/kg and gave satisfactory sedation throughout the procedure

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The protruding melon sized mass on the cranio-ventral aspect of the abdomen



Opening the hernial sac, returning the hernial contents into the peritoneum and suturing the hernial ring



Closure of the subcutaneous tissue and fascia in simple interrupted pattern using catgut no 2



Closure of the skin in Horizontal mattress pattern using Nylon sutures of size 2