

VENTRAL ABDOMINAL HERNIA IN A 2- YEAR OLD BALAMI EWE

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ABSTRACT

A 2- year -old balami ewe was presented to Large Animal Clinic of Veterinary Teaching Hospital, Usmanu Danfodiyo University Sokoto, with the complaint of swelling on the mid-ventral side of the abdomen. The swelling resulted from violent attack by a ram in the herd. On physical examination reducible ventral hernia was diagnosed. Herniorrhaphy was carried out following mild sedation and local anaesthesia. Skin incision was made directly on the hernia ring to expose the contents. The contents were reduced; muscles and skin were sutured using catgut size 2/0 and nylon size 2/0 respectively. Postoperative antibiotic and analgesic were administered intramuscularly for 5 days. Sutures were removed 2 weeks postoperative. The ewe recovered fully and discharged 14 days after the surgery and no any complication up to know. In conclusion, herniorrhaphy should be chosen as the best option for management ventral abdominal hernia.

Key words: ventral abdominal hernia, sheep, surgical management

INTRODUCTION

Hernia is a protrusion of an organ or tissue through an opening (Tiwari *et al.*, 2004).The opening may be caused by a tear in the abdominal or it may be natural opening like femoral canal or inguinal canal (Jean and Anderson, 2003).Ventral abdominal hernia is a common acquired condition in ruminants (Tiwari, *et. al.*, 2004). Trauma due to horn thrush, kick or violent contact with blunt object or by abdominal distension due to pregnancy or violent straining during parturition may cause ventral hernia due to serious muscular injury to the abdominal wall (Krishnamurthy, 1995). This is common in dogs and pigs but less so in other domestic animals (Jettennavar *et al.*, 2010).

Case report

A 2-year old Balami ewe was presented to the Large Animal Clinic of Veterinary Teaching Hospital, Usmanu Danfodiyo University Sokoto, with the complaint of swelling on the mid-ventral side of the abdomen following butting by a ram prior to presentation. The ewe was managed semi-intensively in a mixed herd comprising 119 others (40 ewes, 7 rams, 57 doe, 11 bucks and 4 bulls).

Clinical examination

On examination, the patient appeared restless, slightly emaciated with rough hair coat and there was a swelling around the left lateral ventral abdominal area. The rectal temperature, pulse and respiratory rates were 38.5°C, 83beats/min and 30cycles/min respectively. The ocular mucus membrane was slightly pale. The capillary refill time was <2 seconds and ewe weighed 35 kg. . Hematology result revealed pack cell volume of 30%.Ventral abdominal hernia was diagnosed and herniorrhaphy was planned for the patient

Surgical management

Food was withheld for 24 h prior to surgery. The patient was properly restrained with mild sedation using 2% Xylazine injection (0.05mg/kg) intramuscularly and placed on right lateral recumbency. The left lateral ventral abdominal area from the xiphoid down to the pelvic region was prepared for routine aseptic surgical procedure using purit® antiseptic (chlorhexidinegluconate B. P 0.3%wv, cetrimide B.P3% W/V, SaroLifeCare Limited, Lagos, Nigeria) for scrubbing and rinsed with methylated spirit (Binji Global Pharmaceutical Company, Sokoto, Nigeria) followed by povidone iodine (Iodine Tincture 2.6%W/V Solution, Apacco Pharmaceutical Company Limited, Ogun, Nigeria). The area was draped in rectangular pattern. Local infiltration anesthesia was performed by using 2% lignocaine hydrochloride (lignocaine hydrochloride, Lignocaine injection B.P 2.5 %,) infiltrated subcutaneously given to effect around the umbilical area. A horizontal skin incision was made directly on the hernia opening which extend deep into the ruptured ventral abdominal muscles to expose the hernia ring and contents. Adhesion of the hernia contents (peritoneal fat) and muscles of the ring was bluntly separated. Hernia ring was freshened by scrapping and stab incision to re-establish vascularity in order to facilitate healing. The contents (Omentoceleal) was return to anatomical position and hernia

ring was sutured by application of simple continuous suture pattern reinforced with subcuticular suture pattern using absorbable suture material (Vicryl®) size 2/0. The skin was sutured using ford interlocking suture pattern using non absorbable suture material nylon size 2/0. Surgical site was dressed and bandaged immediately post-surgery. The ewe recovered and stands normal with no complication. Post-operative medication was achieved using penstrep® at dose rate of 20mg/kg for 5 days, diclofenac at 2.5mg/kg for 3 days and multivitamin at 1ml/10kg for 5 days were administered intramuscularly and amprolium 300 ws® at 1g/kg per os once followed by routine dressing with povidone iodine. The surgical site was dressed on alternate days for 3 days. The sutures were removed on day 14 after the surgery.

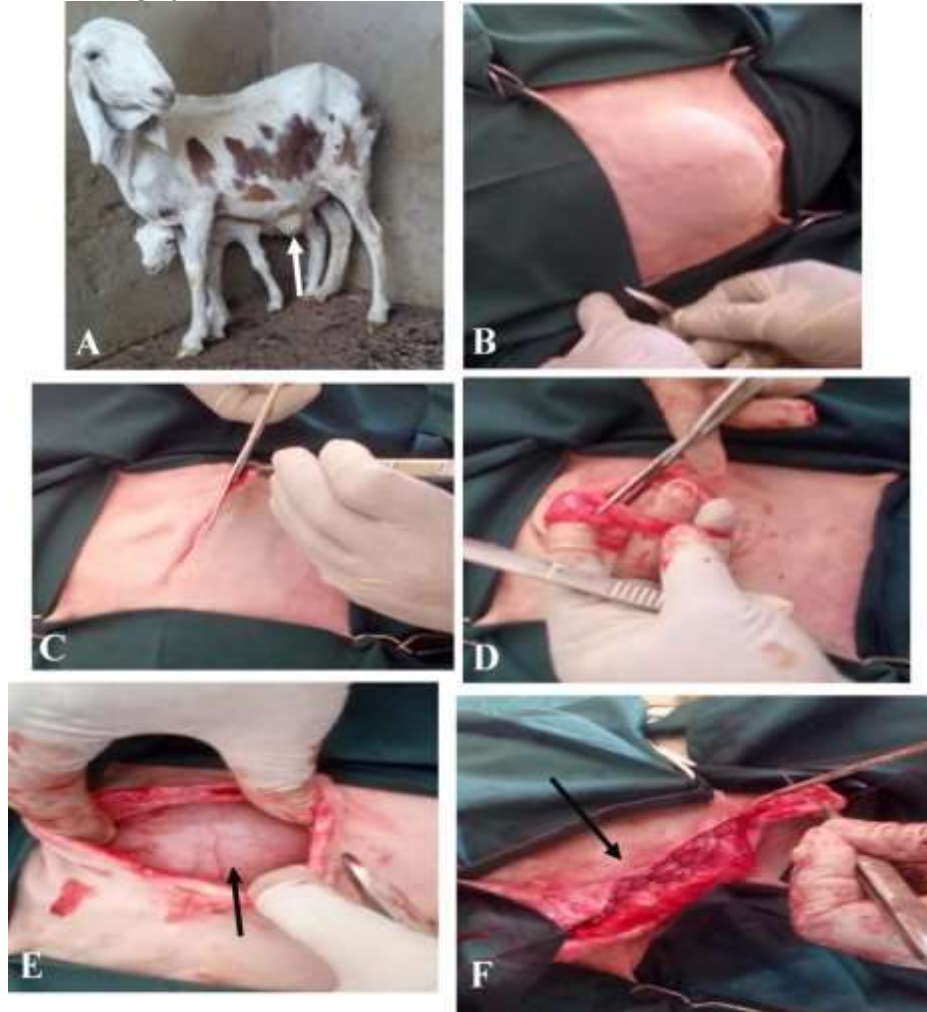


Figure 1: showing ventral abdominal hernia (A), aseptically prepared surgical area with rectangular draping pattern (B), initial horizontal skin incision on the hernia (C), detachment of omentocecal adhesion with hernia ring (D), hernia ring and contents (E), closure of hernia ring with simple continuous suture reinforced with subcuticular pattern using Vicryl® (F)



Figure 2: Showing; skin closure using ford interlocking suture pattern with nylon (A), surgical site dressed immediately post-surgery (B), surgical site dressed and bandaged immediately post-surgery (C), intact surgical site after suture removal on day 14 post surgery

DISCUSSION

The incident of ventral hernia in bovine and ovine species accounts for 32% (Al-Sobayil *et al.*, 2007) though it is a common condition, but it is generally neglected by rural farmers unless it results in serious symptom. The present case at hand resulted following traumatic injury by a blunt object. Similar finding was reported in sheep (Tirgari, 1979), but may also result from overstretching of the abdominal muscles. Successful outcome of this surgery revealed herniorrhaphy as best option for management of ventral hernia.

CONCLUSION

The case discussed herein indicates herniorrhaphy is a reliable option for management ventral abdominal hernia. It seeks to discourage farmers of using traditional method in management of hernia as it is accompanied with unpredictable event. Overgrown horns should be removed or trimmed to avoid self-inflicting injury and to other animals in the flock. Blunt and sharp object in the surroundings should be checked and removed regularly.

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