Surgical management of ventral hernia (Hysterocele) in a doe: A case report

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Abstract

A four year old non descriptive female goat was presented to the Teaching Veterinary clinical complex Hospital (TVCC) Rajendranagar, Hyderabad with a history of distended ventral abdominal wall and excessive enlargement of the udder. Clinical examination of swollen udder revealed fetal movements. Radiographic examination confirmed fetal skeleton in udder region and diagnosed as hysterocele. Cesarean section along with herniorrhaphy was performed and animal recovered uneventfully.

Keywords: Hysterocele, Cesarean section, Herniorrhaphy

Introduction

In animals ventral hernia occurs mainly due to any trauma such as a kick, blow, horn thrust or falling on blunt objects and rupture of pre pubic tendon (Frank, 1981). Ventral abdominal hernias are generally observed in pluriparous ruminants in advanced pregnancy with multiple fetus which leads to fragility of abdominal muscles or prepubic tendon (Vijayanand et al., 2009). A case of ventral abdominal hernia of gravid uterus in a goat is reported.

History and clinical signs

A 4 year old non-descript pluriparous doe in its near term of pregnancy was brought to Teaching Veterinary clinical complex Hospital (TVCC) Rajendranagar, Hyderabad with a history of automobile accident seven days earlier and since then swelling at udder region was observed by the owner (Fig. 1). Palpation of the swelling site revealed fluid thrill and fetal parts. Fetal movements were observed in the udder region indicating a live fetus. Radiographic examination confirmed presence of two fetal skeletons (Fig. 2). The case was diagnosed as ventral hernia (hysterocele) with live fetus and so it was decided to perform cesarean and simultaneous herniorrhaphy.

Fig 1: Swelling at udder and lower abdominal region

Fig 2: Radiographic view of right lateral lower abdominal region showing fetal skeleton
Treatment and Discussion
The doe was sedated with an intramuscular injection of 0.1 mg/kg Xylazine hydrochloride and placed in left lateral recumbency and the ventral abdomen was aseptically prepared in a standard fashion. The surgical area was desensitized with a linear infiltration of 2% lidocaine hydrochloride. A right paramedian incision was made on hernia ring site and uterus was exposed immediately below the skin and subcutaneous tissue. Two live fetus along with fetal membranes were removed. The uterine incision was sutured using catgut (No.1 size) first with an inversion suture (Lemberts) followed by a cushings pattern and uterus was replaced in its original abdominal position. A tear of about 16cm length in the lower abdominal muscle was noticed. Correspondingly the skin incision was extended. The abdominal muscles were sutured with a non absorbable suture material prolene (No. 1) in simple interrupted pattern (Fig. 3). The subcutaneous tissue was sutured with catgut (No. 0 size) using continuous pattern. The skin incision was sutured with horizontal mattress suture technique using Prolene (No. 1 size) (Fig. 4). The doe was maintained on fluid therapy with 5% dextrose along with antibiotic therapy with inj.Amoxyccillin+cloxacillin @ 10mg/kg b.wt b.i.d for five days(I/M), analgesic Meloxicam @ 0.5 mg/kg b.wt(I/M) for three days. The skin sutures were removed on the 14th post operative day. The doe recovered uneventfully.

Discussion
The incidence of ventral abdominal hernia in animals (Bovines and Ovines) accounts for 32.3% but exact causes of hernia cannot be traced. Surgical intervention (herniorrhaphy) is useful in case of large hernial opening but in extensive ventral abdominal hernia may require hernioplasty (Jettennavar et al., 2010). In the present study, gravid uterus might cause weakening of the abdominal muscles due to violent trauma with the blunt object during automobile injury. A tear about 16cm length was successfully corrected by herniorrhaphy without any complications. Two live fully grown fetus was removed. Postoperative care was followed with reduced feed intake for a week and a supportive bandage placed around the abdomen helped for faster healing process.

Reference