INTRODUCTION

Hernias are a passage of an organ or tissue through an opening which may be natural or acquired. Almost all animals are affected by it. Hernias can be divided on the basis of etiology e.g. congenital and acquired hernia, on the basis of location e.g. abdominal, umbilical, scrotal, inguinal, femoral, perineal and diaphragmatic hernia or clinically into reducible or irreducible hernia (Fahd and Ahmed, 2007). Typically a hernia is consist of hernia sac, hernia ring, hernia contents. Any visera that migrate through any part of the abdominal wall ventral to the stifle skin fold other than natural orifice can be defined as ventral hernia (Yasin, 2004). Severe trauma on abdominal wall, violent force or injury originating by blunt object, horn thrust in cattle, kicks in camel, and abscess in abdominal wall, overstretched or straining of abdominal muscles due to pregnancy and parturition causing weak abdominal muscle may lead to ventral abdominal hernias. Some atraumatic causes e.g. weakness or rupture of prepubic tendon so that the gravid uterus cannot be supported also resposible for ventral abdominal hernias. (St Jean and Anderson, 2004; McILwraith, 1984). The sites of the Ventral abdominal hernias may vary from the Lateral site of the thoracic cav-
nancy incase of multiple fetus which leads to fragility of abdominal muscles or prepubic tendon (Vijayanand et al., 2009). A hernia of gravid uterus is very rare in goat. A case of ventral abdominal hernia in a goat is reported.

**Case Presentation and History**

In present study, a referral case of four years old Jamunapari goat weighing 70 kg was registered at Teaching Veterinary Hospital in Chittagong Veterinary and Animal Sciences University with the history of excessive enlargement of ventral abdominal wall and udder during pregnancy (Figure 1). The owner claimed that its gestation period has already completed fifteen day before. The physical examination was done by taking temperature, heart take, respiration rate, dehydration. The abdominal ballottement was done to ensure multiple fetuses existing in udder. The extremities and head were easily palpable on swollen udder. As the gestation period has prolonged and there was no sign of parturition decision was taken by the veterinary surgeon to do caesarean section for delivery of the fetuses. After cesarean section there are four fetuses within the gravid uterus of the doe, due to multiple fetuses in the gravid uterus the abdominal muscle could not bear the weight thus create a opening through the gravid uterus goes within the udder.

**Surgical Management and Post Operative Care**

The caesarean section was done in left lateral recumbent condition. Before surgery the skin was clipped, shaved, soaked with alcohol and painted with tincture iodine. As preoperative care 5% dextrose saline was infused and the doe was sedated by sedil (diazepam) @ 0.5 mg/kg body weight local anaesthesia was done using 2% lidocaine hydrochloride @ 1ml/ cm area for inverted seven blocks in front of incision site. Chronologically the skin, fascia, abdominal muscle layer (obliquus abdominis externus, obliquus abdominis internus, transverse abdominis, retus abdominis), peritonium, was incised. Then the gravid uterus was exteriorized and made an incision at greater curvature of uterus (Figure 2). Bleeding was checked using artery forceps and pressure pad. We expelled out four kids, but all the kids were dead. After that the uterus was sutured with czerny-lembert using catgut no. size 2 (Figure 3). The abdominal rupture was exposed (Figure 4) and closed with
simple interrupted pattern using catgut no. size 1 (Figure 5). The uterus was replaced into the abdominal cavity. Then nylon size no.2 was applied on skin for a positioning the two cutting ends. Tincture benzoin seal was applied on closed cutting edges as antiseptic which gives the protection from bacterial contamination (Figure 7). As Post operative care antibiotic, Streptopenicillin (Streptopen®, 2.5 gm vial, The Renata Limited, Dhaka, Bangladesh) 6ml and antihistaminic Pheneramine Meleate (Histavet® The ACI Limited, Dhaka, Bangladesh) 3ml daily intramuscularly for 7 days and pain killer Melvet (®, Acme Pharmaceuticals, Dhaka, Bangladesh) 2ml for 3 days and dressing was done as alternative day. Surgical wound was healed at 10th day of postoperative care and sutures were removed at the same day.

DISCUSSION

Hernias cause economic problem as well as welfare problem. They hamper of production and reproduction profitability (Keown, 1974) similar with the findings of this study. These are very frustrating for commercial producers e.g. scrotal hernia, ventral abdominal hernia (hysterocele). The incidence of ventral abdominal hernia in animals 32.3% but exact causes of hernia were not traced by (Jettennavar et al., 2010). In my present study as it was a advance pregnant doe with multiple (four) kids so there were weaking of abdominal muscle, ultimately the gravid uteus came to abdominal cavity near mammary gland. The fetuses we delivered were dead which is almost similar to the observation of (Venkatesan, 2007). A case of ventral hysterocele in a goat with a automobile accident followed by a tear in the abdominal muscles leading to herniation of gravid uterus with live full grown fetuses was reported earlier by (Vijayanand et al., 2009) dissimilar with this study it may be due to different condition. the rupture of the prepubic tendon due to hydroallantois which increase weight of gravid uterus leads to ventral abdominal hernia (Selvaraju et al., 2010) similar with the findings of this present study four fetus with fetal fluids which increase weight of uterus resulting ventral abdominal hernia. Rupture of the prepubic tendon is more complicated in small ruminants as it usually inures the udder due to the closeness of the udder to the ground and the animal heights, if not treated earlier it becomes complicated and more frequently observed in Shami breed does reported by (Mavrogenis, 2000; Mavrogenis et al., 2006) similar with this study. Therefore, Does with multiple (Three of four) fetus within the uterus should be diagnosed by expert veterinarian with the help of ultrasonography and safe the life of fetus and does after complete gestation period either normal delivery or caesarean section.

CONCLUSION

The doe survived successfully after operation, but the fetuses were not survived due to unknown causes; prolong
gestation is one of them. Early diagnosis of multiple fetus-es by ultrasound, proper management and support during pregnancy and record of complete gestation period would be helpful for save the life of newborn and prevention of ventral abdominal hernia.

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CONFLICT OF INTERESTS

No conflict of interest.

AUTHORS’ CONTRIBUTION

All authors contributed equally.

REFERENCES