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Perineal hernia containing pregnant uterus in a doe

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Short Communication

Perineal hernia containing pregnant uterus in a doe

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Abstract

A Saanen Maltese mixed-breed doe, about 5 years old, at last gestation, was presented with a complaint of a gradually enlarging swelling on the caudo-ventral area of the abdomen and proximal part of the udders. In clinical examination, abdominal distension and enlargement, a swelling beginning at the right perineal region and extending to the caudo-ventral area of the abdomen and the dorsal site of the udders, were observed. Two fetus and their organs (extremities) were felt by palpation of the swelling. Pulsations of the yeanlings in the swelling were determined by ultrasonographic examination. Vaginal examination result was normal and cervix was closed. Considering the health status, possible dystocia problem of the doe, the yeanlings were removed by Caesarean section under general anesthesia. The planned surgical correction of the hernial hole could not be performed on the perineal region because the patient's owner did not permit this surgical approach.

Keywords: doe, pregnant uterus, perineal hernia

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Introduction

Herniation is a protrusion of an organ or a tissue through a congenital hole or traumatic wall defects (Das et al., 2012; Jettennavar et al., 2010; Kimeli et al., 2014). The exact pathological cause of herniation is a muscle tear covering an organ or an enlargement of a natural anatomic hole (Das et al., 2012; Jettennavar et al., 2010).

Herniation is more commonly encountered pathologically in veterinary medicine (Das et al., 2012; Gomes et al., 2010). Among types of hernias, perineal hernia occurs commonly in dogs. However, it is seldom observed in small ruminants and, thus, has rarely been reported (Gomes et al., 2010). The reported cases of perineal hernia are in a pregnant sheep (Gomes et al., 2010), a non-pregnant doe and a male goat (Abdin-Bey and Ramadan, 2001). Here, an interest case of perineal hernia containing pregnant uterus is reported in a doe, with clinical results and other data.

Materials and Methods

A Saanen Maltese mixed-breed doe, about 5 years old, at last days of gestation period, was presented to Obstetrics and Gynecology Clinics of Faculty of Veterinary Medicine, Uludag University with a gradually enlarging swelling on the caudo-ventral area of the abdomen and dorsal part of the udders.

In anamnesis, it was stated by the owner that the doe was housed in a semi-extensive barn, and this was the first pregnancy period of doe in the herd. According to the owner's estimation and his herd records, there were a few days for parturition of the doe. In addition, the owner informed that the swelling had commenced loosely at the dorsal part of the udders and extended to the caudo-ventral abdomen without trauma and increased day by day together with the progression of the pregnancy. Appetency of the doe had decreased in the last few days, but urination and defecation were normal.

General examination revealed normal vital parameters (temperature: 39.9^{o}C, pulsation: 94/min, respiration: 16/min, capillary filling time: 2 sec, mucosal membrane color: pink) and no dehydration. However, the doe had abdominal distension due to gestation and had a swelling on the perineal region (Fig 1) which extended to the ventral abdominal wall and deviation of the udder lobes (Figs 2 and 3). Palpation of the swelling revealed heads and extremities of a minimum of 2 yeanlings on the dorsal part of the udder lobes. In real-time ultrasonographic examination, the herniated uterus and vitality of the yeanlings were confirmed with detection of heartbeat, but hernial width and dimension of the hernial hole were not determined clearly due to hernia enlargement. In vaginal examination, there was no vaginal discharge and cervical openness indicating partum signs. The udder lobes were plump by palpation, and milking revealed milky appearance fluid character.

On the basis of the anamnesis and clinical examination findings, the case was diagnosed as perineal hernia. Moreover, considering the healthy status of the doe, possible dystocia problem and the heartbeat of the yeanlings by real-time ultrasonographic examination, with permission of the patient's owner, Caesarean section was performed to bring the kids into world alive.

Figure 1 Clinical appearance of the case. The arrow points out the swelling on the perineal region.

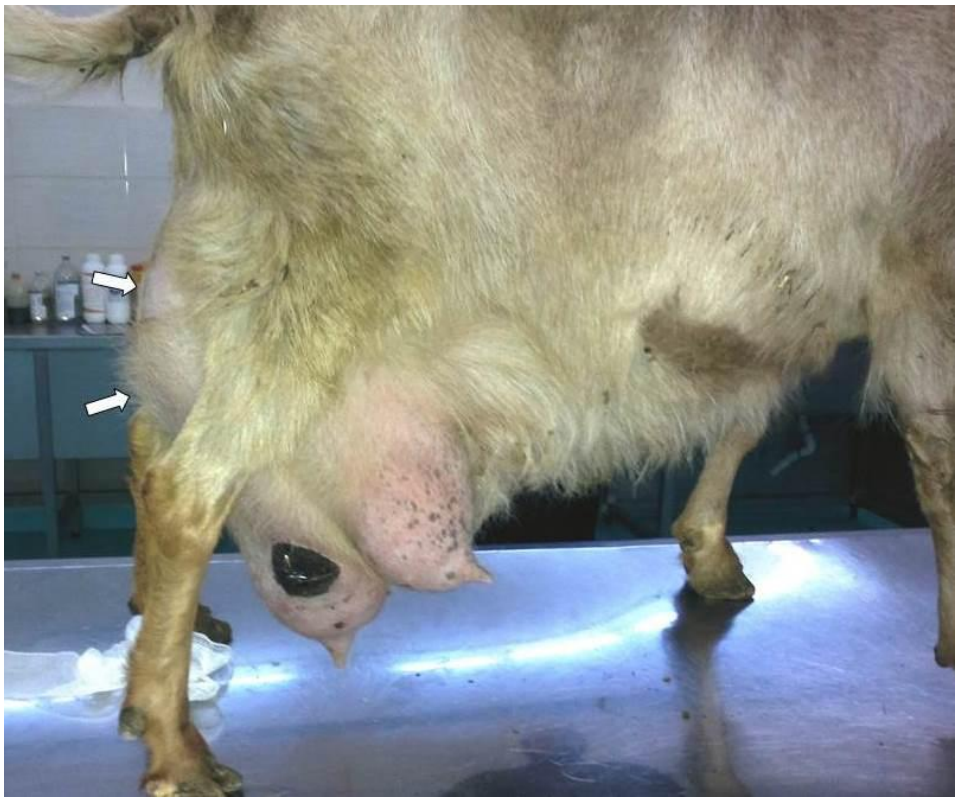

Figure 2 Lateral aspect of the case. The swelling (arrows) on the perineal region and dorsal site of the udder lobes, where the yeanlings were palpated.

Figure 3 Extension of the swelling on the dorsal part of the udder lobes (arrows)

Results and Discussion

After sedation of the doe with xylazine HCl (Alfazyne®, Egevet, İzmir) (0.1-0.2 mg/kg, i.m.), general anesthesia was performed with administration of ketamine HCl (Alfamine®, Egevet, İzmir) (4 mg/kg, i.m.).

Preoperatively, shave of hears, disinfection and antiseptic applications of the operation site were performed for aseptic surgery. Prilocain (Citanest®, AstraZeneca, Turkey) was injected as local anesthetic agent into the left flank. A longitudinal incision was made for laparotomy from the ventral site of the flank. Subcutaneous tissues, muscles and periton were

incised and hemorrhage was controlled by hemostatic forceps. At that time, abdominal exploration revealed a pregnant uterine horn in the perineal hernia sac. This uterine horn was taken out of the abdominal cavity by manipulation. This herniated uterine horn and the other horn were incised longitudinally with routine technique. A total of 3 healthy yeanlings (two were in the herniated horn and one was in the other uterine horn) were removed. Incisions were sutured following the Schmieden and Cushing suture patterns without absorbable suture materials (Vicryl®, Ethican, USA). After in-situ of the organs, repeated abdominal exploration demonstrated a hernia hole palpated internally from the abdominal cavity, and about 20-25 cm dorso-ventral longitudinal muscle rupture was detected from the right perineal region to the inguinal canal. Subdermal area of the perineal region was also palpated easily.

The patient's owner was informed about the size of the perineal hernia and possible difficulties with following pregnancies, but he did not permit this surgical approach. Thus, surgical correction of the hernial hole was not planned. Laparotomy incision was sutured routinely, and 5-day amoxicillin clavulanate (15 mg/kg, im.) (Synulox®, Pfizer, Turkey) and fulinixin meglumine (1.1 mg/kg, im) (Flumed®, Alke, Turkey) were suggested.

Abdominal hernia occurs as a result of any traumatic condition such as horn strike or tearing of weak abdominal muscles due to abdominal enlargement related to pregnancy (Jettennavar et al., 2010). Furthermore, abdominal wall weakness due to deep abscess and blunt traumas caused by motor vehicle accidents or a kick by an animal are other etiologies for herniation (Das et al., 2012; Jettennavar et al., 2010). In the present case, it was considered that the swelling on the perineal region had increased with the progression of pregnancy, during which the weak muscles were ruptured.

In both congenital and acquired hernia cases, intraabdominal organs pass into the hernia hole and settle in the hernial sac (Abdin-Bey and Ramadan, 2001; Jettennavar et al., 2010). In pregnant animals, the uterus can dislocate as a herniated organ in the hernial sac; thus, dystocia emerges if inguinal or perineal hernias are diagnosed. Uterus herniation has not been reported in goats with perineal hernia until now, but rectum and fat tissue herniation was presented in reported cases (Abdin-Bey and Ramadan, 2001). In the clinical examination, the hernial swelling extended from the perineum to the dorsal sites of the udder lobes, and the palpation of the swelling revealed heads and extremities of a minimum of 2 yeanlings.

Perineal hernia is a reason for dystocia in pregnant animals that leads to abnormal presentation and position of the birth canal (Sobiraj, 1994). It was considered that normal delivering process was not possible in our case; thus, the Caesarean section was performed with the permission of the patient's owner. It has been reported that surgical correction without suture of the hernial hole was performed in a pregnant sheep on the 120th gestation day without any postoperative complications (Gomes et al., 2010). In the present case, the Caesarean section was performed with the consideration of dystocia, but no surgical correction (suture of the hernia hole) was permitted by the patient's owner.

In conclusion, increasing abdominal enlargement in pregnancy periods can be responsible for muscle ruptures leading to herniation. Among the hernia cases (abdominal, inguinal and umbilical), perineal hernia can be encountered in ruminants as was clearly diagnosed in the pregnant doe in the present study.

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บทคัดย่อ

ไส้เลื่อนฝีเย็บ เนื่องจากมดลูก ในแพะตั้งท้อง

ไซเน็ม ออซดีเมียร์ สาลซี* และ บารีส กาเนอร์

แม่แพะพันธุ์ผสม Saanen Maltese อายุประมาณ 5 ปี ตั้งท้องในระยะสุดท้าย มาด้วยอาการช่องท้องขยายใหญ่บริเวณ ด้านท้ายและรอบเต้านม การตรวจทางคลินิกพบหน้าท้องตึงและขยายใหญ่ ตั้งแต่บริเวณด้านขาวของฝีเย็บมาถึงด้านท้ายและล่างของหน้าท้อง และด้านหลังของเต้านม สามารถคลำพบตัวอ่อนและขา เมื่อตรวจบริเวณที่บวมขยายด้วยอัลตร้าซาวน์ พบชีพจรของลูกแพะ บริเวณช่องคลอดปกติและปากมดลูกปิด จากการประเมินสภาพสัตว์ได้ทำการผ่าคลอดโดยการวางยาสลบทั้งตัว อย่างไรก็ตามไม่ได้ดำเนินการแก้ไขภาวะไส้เลื่อน เนื่องจากเจ้าของไม่อนุญาต

คำสำคัญ: แม่แพะ ตั้งท้อง มดลูก ไส้เลื่อนฝีเย็บ

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