Hydrops of Allantois in a Deccani Ewe - A Case Report
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Abstract
A 5 year old Deccani ewe in the last trimester of gestation was referred to clinic with a history of sudden, progressive and bilateral distention of abdomen. The ewe underwent a midventral caesarean section under infiltration analgesia and revealed a grossly distended, thin walled, transudate like fluid filled uterus with 10 to 12 litres of allantoic fluid and found live fetus. The ewe recovered uneventfully.

Keywords: Deccani ewe, Hydroallantois, Caesarean section

Introduction
Hydrallantois (hydrops of the allantois), is characterized by acute accumulation of allantoic fluid during a 5- to 20-day period in the last trimester of pregnancy that occurs mainly in the bovine and rarely in ewes and mares (Milton et al., 1989 and Peiro R et al., 2007). One of the cause for hydroallantois may be associated with diseased uterus may lead to non-functional caruncles in one horn and causes vascular disturbances (Pradeep BK., 2009). The clinical signs associated with hydroallantois vary somewhat with the volume of fetal fluids accumulated and the duration of the condition (Milton et al., 1989 and Peiro R et al., 2007) and affected animals have a reduced appetite due to visceral compression, weakness and inability to rise (Peek., 1997), dehydration and may have respiratory difficulty (Barth., 1986). The details of surgical management of hydrallantois in a Deccani ewe is mentioned in this case report.

Case History and Clinical Observations
A 5 year old Deccani ewe in the last trimester of gestation was referred to clinic with the complaint of acute, progressive, bilateral abdominal distention in the last 7 days. The ewe was presented for its third lambing. Upon External examination, the ewe showed a severe symmetric bilateral abdominal distention (Fig. 1). The conditions, Gas tympany and Ascites were ruled out by performing abdominal percussion
and paracentesis methods, respectively. The animal was alert and able to stand and walk. The presumptive diagnosis was hydrallantois or hydramnios. Basing on the history, external and clinical examination, it was decided that there was a need for surgical intervention.

**Fig. 1**: Severe bilateral abdominal distention

**Treatment**

The animal was prepared for caesarean section as per the standard procedure and restrained in dorsal recumbency. Ringers lactate infusion was given intravenously to prevent hypovolemic shock. The animal was operated under mid ventral incision was given under 2% Lignocaine Hcl and uterus was exteriorized. The uterus was abnormally distended and thin walled (Fig. 2). The uterus was incised and about 10-12 L of watery, amber coloured transudate like allantoic fluid was drained out. One live fetus was found in the uterus and it was died after five minutes despite resuscitation. The uterus was rinsed with copious amounts of normal saline. The uterine incision was closed by cushings followed by lambert’s pattern using 1/0 chromic catgut. Peritoneum and muscles were apposed by continuous lock stitch pattern using 1/0 chromic catgut. The skin was apposed by interrupted horizontal mattress sutures using black braided silk.

**Fig. 2**: Abnormally sized thin walled uterus with areas of placental immaturity

**Discussion**
Hydramnios must be differentiated from hydramnios, intestinal obstruction, ascites, rupture of bladder, an abdominal mass (eg: tumor, abscess, or fat necrosis), rumen tympany (in ruminants), hydrometra (in ewes), and multiple fetuses (Morin et al., 1994). Transrectal or transabdominal ultrasonography has been used to help diagnose hydrallantois and is especially useful in ewes (Morin et al., 1994). In animals with hydroallantois, most fetuses may have congenital defects, are underdeveloped, or are apparently normal but not viable (Milton et al., 1989, and Morin et al., 1994). In the present case no fetal abnormality could be detected except placental immaturity. In the present case, the ewe showed the same clinical signs as described by Milton et al., (1989) and Peiro R et al., (2007) and in other species with hydrallantois like caprine (Misri et al., 2001) and in buffaloes (Phogat et al., 1993). In sheep, allantoic fluid volume varies during gestation and increases to a maximum of 0.7 L to 1.5 L at term (Toniollo et al., 1993), in comparison to cows (≤ 19 L), and mares (≤ 15 L) (Morin et al., 1994). The data showed that, with hydrallantois, the volume of allantoic fluid may be ≥ 10 times this amount (Misri et al., 2001 and Peiro R et al., 2007) as occurred with this ewe (10 to 12 liters).

Treatment for hydroallantois is directed at evacuation of the uterus by cesarean section or termination of pregnancy with prostaglandin (Morin et al., 1994 and Peiro R et al., 2007). The cause of hydrallantois in this ewe was uncertain, it may be due to an increase in the permeability of the chorioallantoic membrane or a decrease in the active transport of sodium ions across the chorioallantoic membrane.

Summary

The outcome of this case may suggest a better prognosis for hydrops of allantois, compared with that for cows and mares with hydrallantois. In this case farmer was advised to discourage rebreeding.

References