

Hydrallantois Associated with Fetal Anasarca in a Non-Descript Doe

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The incidence of dystocia in goats has been reported about 7% (Abdul-Rahman *et al.*, 2000) to 8.23 % (Mehta *et al.*, 2002). Fetal causes of dystocia are more common than maternal causes in goat (Abdul-Rahman *et al.*, 2000) and sheep (Taha *et al.*, 2005). Among dropsical conditions, the hydrallantois is more common compared to hydramnios (Hafez, 1993) and is frequently reported in bovines (having twins), rarely in mares (Milton *et al.*, 1989) and less frequently in small ruminants. Hydrallantois is excessive accumulation of fluid in the allantoic sac in uterus, usually occurs within 5 to 20 days in advance pregnancy. Goats suffering from hydrallantois are usually presented in their second stage of labor with a history of sudden enlargement of the abdomen after mid gestation (Purohit, 2006). The present report documents a case of hydrallantois associated with fetal anasarca and its successful management in a non-descript doe.

Case History and Observations

A three years old goat in her 3rd parity was presented at full term without any signs of parturition along with bilateral tense abdominal distention (barrel like) since last 15 days. She was unable to bear body weight and reluctant to move since last 3 days along with labored breathing. Abdominal palpation and paracentesis of lower abdomen revealed the presence of huge amount of light amber colored watery fluid in uterus. Physiological parameters as temperature, heart rate and respiration rate and mucous membrane were 101.2°F, 86/min, 32/min, and pink, respectively. There was a little reddish colored vaginal discharge since 2 days and on vaginal examination, cervix was found dilated. Based on history, symptoms, and clinical examination, the case was diagnosed as hydrallantois.

Treatment and Discussion

About 2.5 lit of fluid was siphoned out from uterus by paracentesis through lower abdomen with the help of 18 G needle attached to a I/V tube slowly and then animal was treated with PGF₂α (inj cloprostenol sodium @ 1ml i/m) and corticosteroid (Inj dexamethasone @ 8 mg i/m) in order to induce the parturition. Fluid therapy was provided with inj. DNS 1 lit and RL 2 lit intravenously. After 23 hours cervix got dilated and water bag appeared through vaginal cavity. Animal was administered with antibiotic ceftriaxone @ 15 mg/kg bw, Inj DNS @ 1 lit and Inj RL 1 lit intravenously along with the siphoning again the allantoic fluid (about 2 lit.) direct from uterus as previously performed. After 1 hr of the fluid therapy, vaginal manipulation led to rupture of the water bag and huge amount of fluid (about

9 to 10 lit) was drained out. Pervaginal examination revealed that one dead fetus was in anterior longitudinal presentation, right dorsoiliac position with flexed knees. The abdomen of the fetus was ruptured with small hook in order to reduce the size of fetus and then it was delivered successfully with manual manipulation. There was also another live fetus in womb that was taken out without any complication, but within few minutes it died. The 1st fetus was a female showing developing anasarca like condition as edema was present in hind limbs, forelimbs and up to some extent in mandible (Fig. 1). The doe was given fluid therapy with Inj DNS @ 1 lit., Inj RL 1 lit intravenously again, and corticosteroid @ 4 mg intramuscularly. Animal was discharged with advice of the herbal uterine cleanser, B-complex drugs and immune stimulators along with fluid therapy and antibiotic treatment for next 4 days. Animal recovered uneventfully within 8 days with normal feed and water intake along with weight gain.

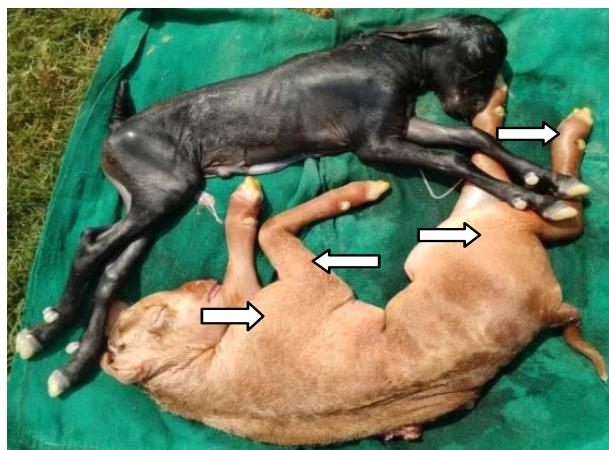


Fig 1. Developing anasarca (arrows) in one of the twins kids

Hydrallantois is usually associated with diseased uterus with reduced number of placentomes and fetal edema may develop in a single fetus or one of the twins. Along with history, clinical observation, consistency of uterine fluid, transrectal or transabdominal ultrasonography could be used to diagnose hydrallantois in ewes (Morin *et al.*, 1994) and other small ruminants as also followed in present case. During treatment of this hydrops condition, it is recommended to draw off fluid gradually over a period of 24 hrs and appropriate fluid therapy to combat the electrolyte imbalance to avoid

possible circulatory shock from removing too much fluid rapidly (Purohit, 2006). The management of the case with fluid therapy in order to prevent circulatory shock along with induction of parturition in a doe was also reported by Manokaran (2005). Hydrallantois associated with anasarca twinning in does were reported earlier by Sreejith *et al.* (2009) and Philip *et al.* (2012).

This case report suggests that by proper diagnosis, fluid management with regular follow up, the hydrallantois in small ruminants may be managed successfully without surgical intervention.

Competing Interest:

Authors have no competing interest.

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