Hydrallantois in a Non-Descript Goat

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Hydrallantois (hydrops of allantois) is characterized by excessive 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 does and ewes (Milton et al., 1989). It is usually associated with diseased uterus in which most of the caruncles in one horn are not functional and rest of the placentomes is greatly enlarged and possibly diseased (Roberts, 1971). Perusal of literature revealed that the report of hydrallantois in doe in rare. Hence, the present report is placed to record on early diagnosis and successful treatment of hydrallantois in a non-descript goat.

Case History and Observations

A 5 year old non-descript doe on its last trimester of gestation (4th month) was brought to the Veterinary College Hospital with the primary complaint of acute, sudden, bilateral abdominal distention in the last 12 days. At the time of admission the doe was recumbent with severe symmetric bilateral abdominal distention, mainly in the ventral region without the presence of gas tympany. The clinical examination of the animal showed a pale visible mucus membrane, temperature of 38.8°C, heart rate of 83/min and respiratory rate of 24/min. On abdominal palpation, it was not able to palpate the fetal parts. The vaginal examination of the animal revealed patent vaginal passage, closed external os of cervix with a scanty mucous discharge. With the history, clinical observations and rectal examination, the case was confirmed as hydrops and it was decided to terminate the pregnancy.

Treatment and Discussion

The animal was stabilized with the administration of inj. DNS – 1.5 lit i/v and the pregnancy was terminated with inj. Dinoprost tromethamine (12.5 mg, i/m) and inj. Dexamethasone (10 mg, i/m). The intravenous fluid was continued at 12 h interval. Forty eight hours after prostaglandin injection, the cervix was fully dilated with intact fetal membranes. Before puncturing the fetal membranes to remove fluid and fetus, the right side jugular vein was canulated to administer Ringer’s lactate to avoid circulatory shock and collapse. Rupture of the fetal membranes resulted in 14 lit of amber colored allantoic fluid gushing from the uterus which confirmed the diagnosis as a case of hydrallantois. By manual traction, an anteriorly presented dead male fetus was delivered. The placenta was edematous and leathery and fastly adhered to the caruncles. The maternal caruncles were hypertrophied and larger in size and were few in number. Following fetal delivery, the doe was administered with inj. Ringer’s lactate – 1.5 lit i/v, inj. Enrofloxacin – 225 mg i/m, inj. Chlorpheniramine maleate – 45 mg i/m, inj. Meloxicam – 22.5 mg i/m and inj. Vitamin B-complex – 2 ml i/m, inj. Oxytocin – 10 IU i/v and inj. Calcium gluconate (10%) – 50 ml i/v. The antibiotic and antihistamine were continued for five days and the doe recovered uneventfully.

Hydrallantois is the single pathologic factor present in 85 to 90% of dropsical conditions. The cause of hydrallantois is not certain. Generally deficient number of caruncles is noticed in hydrallantois. This deficiency may
be due to either a congenital lack of development or uterine disease acquired in later life. A reduction in the number of cotyledons has also been associated with hydrallantois (Youngquist, 1997). Decreased active transport of sodium across the chorioallantoic membrane, increased permeability of the chorioallantoic membrane, hormonal imbalances, fetal renal disease, deficiency of vitamin-A causing decreased endometrial resistance to infections (compromises the number of caruncles) and malnutrition conditions may contribute to this process (Peiro et al., 2007). Various methods of treatment are advocated in the management of the dropsical condition in the field. Some were following oxytocin or dexamethasone injection to expel the fluids and some advised caesarean section (Manokaran, 2005; Purohit et al., 2006). In the present case, dinoprost and dexamethasone were used that caused the expulsion of fluid and fetus successfully without any risk to the dam. Retention of placenta and septic metritis are common sequelae to hydrallantois (Roberts, loc. cit). The continuous postpartum care and treatment avoided the onset of septic metritis and early recovery of the animal.

### Summary

A non-descript doe affected with hydrallantois was successfully treated by terminating pregnancy with dinoprost and dexamethasone and is reported.

### References