Successful Management of Hydrallantois in A Jersey Crossbred Cow

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Abstract

A Jersey crossbred cow affected with hydroallantois at 9 month of gestation was done allentocentesis by fixing Rusch catheter (18") at internal os of cervix to drain the allantoic fluid slowly and then the pregnancy was terminated with inj. Dinoprost tromethamine and inj. Dexamethasone. The allantoic fluid was completely drained out in 20 hours but the cervix was not dilated even after 60 hours. Hence, the cesarean section was performed and with proper postoperative care and treatment the cow recovered uneventfully.

Keywords: *Hydrallantois, cesarean section, allantocentesis, Rusch catheter*

Introduction

Hydrallantois is a pathological condition affecting pregnant uterus characterized by a rapid accumulation of watery, amber colored fluid inside the allantoic cavity over a period of 5 to 20 days in late gestation and is always giving suspicion for twin/triplet pregnancy (Morrow, 1986). If the case is not diagnosed and treated early, in advanced conditions the animal is unable to rise and the prognosis is hopeless. This condition is seen sporadically in dairy cattle and usually affects both fetus and fetal membranes (Roberts, 1971). The present report is placed to record a successful treatment of a severe case of hydrallantois in a Jersey crossbred cow.

Case History and Observations

A multiparous 9 month pregnant Jersey crossbred cow was brought to the Veterinary College and Research Institute Hospital, Namakkal with the history of sudden bilateral distention of abdomen since last 15 days, progressive anorexia and constipation, respiratory distress and

expiratory grunt. The animal was symptomatically treated locally for bloat for one week and referred. At the time of admission the cow was in sternal

Fig -1

recumbency and was unable to getup. The general clinical examination of the animal showed body temperature of 37.8˚C, respiration rate of 40/min., heart rate of 68/min., bilateral distention of abdomen and mucous coated dung. Per vaginal examination revealed closed cervix and patent vaginal passage. The rectal examination showed enlarged and fluid filled uterus with a difficulty in palpating the fetus. The fluid filled uterus occupied the entire abdominal and pelvic cavity obliterating above the pelvic brim. With the history and clinical observation, it was confirmed as advanced/severe case of hydrallantois. Considering the condition of the animal, it was decided to perform allantocentesis to remove the excessive allantoic fluid and also to terminate the pregnancy.

Treatment and Discussion

To avoid hypovolemic shock and to withdraw the allantoic fluid slowly, a Rusch catheter (18") was fixed at the level of internal os of cervix by piercing allantoic bag and the balloon was inflated with 10 ml air. The parturition was induced with inj. Dinoprost tromethamine (25 mg, i/m) and inj. Dexamethasone (40 mg, i/m) (Ramachandraiah et al., 1994, Manokaran, 2005 and

Manokaran et al., 2011). The animal was clinically treated with inj. Gentamicin (1600 mg, i/m), inj. Analgin (20 ml, i/m), inj. Chlorpheniramine maleate (400 mg, i/m), inj. DNS (5 liters, i/v) and inj. D-20% (2 liters, i/v) and the

Fig -2

treatment was continued for two days. The intravenous fluid was repeated in the evening hours also. The allantoic fluid was slowly and continuously passed out through the Rusch catheter (Figure 1). After 20 hours around 125 liters of allantoic fluid came out and the abdomen got reduced to its normal size. But the cervix was not dilated even after 60 hours. To save the cow, it was decided to perform cesarean section. During cesarean, a dead, female, emphysematous fetus with ascites was removed. The placenta was tightly adhered to caruncles and was removed manually along with fetus. The placenta was leathery, thickened and gelatinous (Figure 2). Upon examining the inside of the uterus, it was able to visualize hard, firm and hypertrophied placentomes and was very few in number (Figure 3). The cesarean wound was closed as per standard procedure and the cow was continued with antibiotic, antihistamine and intravenous fluid treatment for one week and recovered uneventfully.

Hydroallantois could usually be associated with a diseased uterus in which most of the caruncles in one horn were not functional and atrophied and rest of the placentomes were enlarged,

edematous and possibly diseased which led to formation of adventitious placenta (Drost, 2007). The excessive accumulation of the fluid in allantoic cavity could be due to structural and functional changes in the allantois chorion including its vessels with transudation and collection of fluid differing from normal allantoic fluid. The polyurea resulted from the hydronephrosis of fetal kidneys was also a cause for excessive accumulation of the fluid inside the allantoic cavity. In the present case, at the time of admission, the cow was severely affected and was unable raise on its own. The allentocentesis performed with Rusch catheter helped to remove the excessive allantoic fluid in a slow manner. Simultaneous fluid replacement through intravenous route helped to avoid the shock due to fluid loss. The charactestic tough and leathery placenta and hypertrophied caruncles and cotyledons were observed in this case. The continuous treatment following cesarean section resulted in early recovery of the cow.

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