HYDROALLANTOIS IN A JAFARABADI BUFFALO: A CASE REPORT

K.K. Hadiya, K.S. Mungad, D.N. Borkhatariya, R.M. Kalasariya and A.J. Dhami

Department of Animal Reproduction Gynaecology and Obstetrics
College of Veterinary Science and Animal Husbandry
Anand Agricultural University, Anand-388 001

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Corresponding Author : Kamleshhadiya@yahoo.co.in

Hydroallantois is one of the sporadic gestational disorders of dairy animals in which sudden increase in allantoic fluid occurs in allantoic cavity due to pathology of foetal membrane leading to bilateral enlargement of abdomen during late gestation (Roberts, 1971). It accounts for about 80-90 per cent of uterine hydrops and is characterized by a rapid and excessive accumulation of watery, amber coloured fluid inside the allantoic cavity over a period of 5 to 20 days giving suspicion for twin/multiple pregnancy (Sloss and Dufty, 1980; Morrow, 1986; Selvaraju *et al*., 2012). This condition invariably results in fetal gestational accident owing to placental dysfunction and fetal kidney failure (Arthur *et al*., 1996; Jana and Ghosh, 2012). This communication places on record of a rare case of hydroallantois in a Jafarabadi buffalo around 8 months of gestation and it's medical management.

CASE HISTORY AND CLINICAL OBSERVATIONS

An 8-year-old buffalo with 8 months of gestation was presented from Bhavnagar district at late night to the Emergency ward of Veterinary College, Anand with the history of sudden bilateral enlargement of abdomen in previous 8-9 days with progressive anxiety, difficult breathing and inable to sit on its own. Initially the case was treated as a bloat by a local quack without success. When presented the buffalo was found dull and depressed with sunken eyes, dry muzzle, anxiety, shallow laboured respiration, and congested mucous membranes but with normal body temperature and bilateral heavy distension of abdomen. The pulse rate, respiratory rate and rectal temperature were 98/min, 30/min and 100.2 °F, respectively.

Per-rectal examination revealed highly distended fluid filled uterus occupying most of the pelvic and abdominal cavities. No fetus could be palpated per rectally. Ultrasonography revealed black coloured anechoic image. Vaginal examination revealed closed cervix. Based on history, symptoms and clinical observations, the case was diagnosed as hydroallantois, and it was decided to induce parturition with medical management.

TREATMENT AND DISCUSSION

In the morning, injection dinoprost tromethamine 25 mg (Lutalyse 5 ml) was given intramuscularly along with dexamethasone 60 mg. Two litres of electrolyte i.v. was also given in morning and evening. After 2 days the sticky fluid started flowing out from the vagina. Animal became recumbent, feeling discomfort with laboured breathing and gasping. By inserting hand per vaginally and throbbing the index finger the allantoic sac was punctured. The watery, amber coloured, non-sticky allantoic fluid started gushing out in a jet flow. About 150 to 180 litres of fluid was drained out from the allantoic sac over a period of 30 to 35 minutes resulting into complete collapse of abdomen. To avoid the complication of hypovolaemic shock 10 litres of dextrose normal saline (5% & 25%) & Ringer's lactate was administered intravenously. Palpation of a dead fetus was now possible in the collapsed thickened lathery allantoic sac. After complete removal of allantoic fluid, a dead male foetus was delivered in posterior presentation manually after correcting the postural defects. Inj. ceftriaxone 3 gm (Cefstan, Pfizer) and dexamethasone 60 mg (Dexona, Zydus Animal Health Care Ltd) were given intravenously, whereas inj. Meloxicam 150 mg (Melonex, Intas Pharma) was administered

i.m. and 6 Furea boli (Furazolidone and urea, Pfizer) were placed intrauterine. The same treatment was continued for next 6 days, except inj dexamethasone. The animal recovered uneventfully, started taking feed and water normally and hence was discharged from clinic, but upon enquiry 10 days post-discharge, it was informed that the animal died just 2 days before for failure of treatment and follow up locally.

In hydroallantois, accumulation of allantoic fluid is rapid due to placental abnormalities and possible interference with sodium metabolism at the cell level (Jackson, 1980). Hydroallantois is seen mostly in 8-9 months of pregnancy (Roberts, 1971) as was seen in the present case and could be due to necrosis and oedema of placenta. Similar observations were made by Vandeplassche *et al.,* (1965) and Roberts, (1971). Sudden increase in the intrauterine fluid imposed pressure over diaphragm resulting in respiratory distress. In present case initiation of calving, measured in the form of cervical dilatation (3 fingers), started between 15-22 hr after commencement of treatments and time duration between treatment administered and calving was around 40-48 hr. These observations were in line with those of Pandey *et al.* (2014). The shifting of fluid from interstitial tissue or cell to cavity might have been responsible for dehydration, sunken eye, dullness and depression. Drainage of allantoic fulid or caesarean is the only treatment option of choice to reduce distress and save life of animal (Arthur *et al.,* 1989). The hydronephrosis of fetal kidney could result in polyurea, which may also cause excessive accumulation of fluid inside the allantoic cavity (Palanisamy *et al.,* 2014). In the present case, a dead foetus was removed along with placenta after drainage of allantoic fluid per vaginum as the cervix was fully dilated following treatment. Inj. dexona and hydrotherapy was administered to prevent the hypovolaemic shock due to rapid drainage of fluid, while rest of the treatment was done symptomatically.

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