Short communication

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Dystocia Due to Hydramnios and Uterine Inertia in a Jaffarabadi Buffalo

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ABSTRACT

The present clinical case reports the successful delivery of a fetus by induced calving in the hydramnios condition in Jaffarabadi buffalo. The buffalo was presented with 320 days of gestation. The parturition was induced with prostaglandin and steroids. The dead fetus with jaw defect was relieved by traction. The dam had an uneventful recovery.

Key words: Dystocia, Hydramnion, Uterine inertia, Jaffarabadi buffalo.

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INTRODUCTION

Hydramnios occurs in 5 to 10 % of cases of uterine dropsy. In hydrops of amnion, abdominal enlargement develops slowly over weeks and months (Roberts, 2004). Moreover, the incidence of hydramnios is 9 to 15 times less than hydroallantois (Drost, 2007). Normally, amniotic fluid is secreted by the fetal salivary glands, lungs, skin, and associated structures and the volume is regulated through swallowing by the fetus. Hydramnios is primarily the result of fetal anomalies and is characterized by the gradual accumulation of amniotic fluid during the last half of pregnancy (Drost, 2007). Excessive accumulation of amniotic fluid can go up to 25 l (as against the normal volume of 3-5 l), and adverse sequelae are rare due to gradual onset and the nature of the disease. The prognosis is fair to good for the life and fertility of the dam (Roberts, 2004; Chung *et al.*, 2019). The current case reports the management of hydroamnios and uterine inertia in Jaffarabadi buffalo (*Bubalus bubalis*).

CASE HISTORY AND OBSERVATIONS

A 10-year pluriparous Jaffarabadi buffalo presented at Veterinary Clinical Complex, Junagadh, Gujarat with a

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history of prolonged gestation (10 months 20 days), and gradual abdominal enlargement since 6-7 months of pregnancy. The feeding and drinking were compromised during the past few days. The owner felt calving-like symptoms i.e. engorgement of the mammary gland and slight restlessness for the past 48 hours.

The general examination revealed bilateral abdominal distension with pear-shaped abdomen, increased respiration rate 50/min, pulse rate 70/min. The gynaeco-clinical examination revealed that the cervix was fully dilated. The uterus was bulged, tense and inelastic which was not manually pressed at the time palpation. In addition, fetal parts and placentomes were not palpable. Hence the condition was diagnosed as hydramnion. The looking to the condition it was decided to deliver fetus by induced calving with injection cloprostenol (500 µg, im) as well as dexamethasone (40 mg, iv). The gynaeco clinical examination after 48 hours of the treatment revealed fully dilated birth canal without ruptures of allantoic and amniotic bags. The dead fetus with jaw defect was delivered successfully by traction and slow release of amniotic fluid which was achieved by puncturing of amnion with 16 gauze needle attached with intravenous set and at the same time 10 l, iv normal saline through jugular vein to prevent hypovolemic shock. Additionally, injections of dexamethasone 20 mg iv, oxytetracycline hydrochloride 10 mg/kg body weight iv and B-complex 10 ml im were administered for three consecutive days.

TREATMENT AND DISCUSSION

In the present clinical case, external and gynaeco-clinical observation revealed prolonged gestation due to hydramnion condition might be due overstretching of uterus. Additionally, the defect in the jaw of fetus and approximate 45-50 liter clear fluid drained from the uterus was evident that the dystocia was due to hydramnion condition followed by uterine inertia. The hydramnios and hydrallantois condition during last trimester of pregnancy can be differentiated from the drained-out fluid which is watery, clear, and amber-colored transudate similar to fetal urine in allantoic fluid, whereas amniotic fluid is an exquisite lubricant that has mucoidal, viscid and syrupy consistency (Drost, 2007).

Hydramnios is a congenital defect due to recessive autosomal gene, and mostly associated with congenital abnormalities leading to malformed fetus (Roberts, 2004). The defect in the fetal jaw (Fig. 1.) observed in the present case might have impaired the swallowing reflex so that fluid in the amnion is increased from 3-5 liter to 45-50 liter. Similarly, the prolonged gestation in buffalo associated with hydroamnios was reported by Honparkhe *et al.* (2010).

Fig. 1. Fetus with defective jaw in hydroamnios condition

In the present case, there was over-distension of uterus due to dropsy of amnion might have resulted in primary uterine inertia. So, calving was induced to deliver the fetus successfully.

Fluid therapy is indicated to correct electrolyte and fluid imbalances in the buffalo. The fluid imbalance may arise either directly from the hydrops condition and sequestration of fluids in the uterus or from gastrointestinal dysfunction or inappetence caused by the hydrops. There is some disagreement over the need for rapid infusion of large volumes of intravenous fluids at the time of delivery. Some authors believe that the fluids can aid in the prevention of shock that may occur with the rapid release of placental fluids (Roberts, 2004). Whereas, others believe that this fluid loss is from the uterus and not the circulatory system, and therefore the animals do not need fluid support (Elmore, 1992).

CONCLUSION

The Jaffarabadi buffalo having prolonged gestation associated with hydroamnios and uterine inertia was managed successfully by inducing calving with prostaglandin and steroids. The dead fetus with jaw defect was relieved per-vaginum after traction.

CONFLICT OF INTEREST

None

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