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A CASE STUDY OF SUCCESSFUL TREATMENT OF HYDROALLANTOIS IN A MURRAH BUFFALO

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Article Info

Keywords: Hydroallantois, allantoic fluid, Murrah buffalo, gestational disorder, supportive fluid therapy, strategic medication, early diagnosis.

Abstract

Hydroallantois is a gestational disorder that affects cattle and buffalo during the last phase of the third trimester. The condition is characterized by a sudden increase in allantoic fluid, resulting in the bilateral enlargement of the abdomen. This paper presents a case study of a 10-year-old Murrah buffalo with sudden bilateral abdominal enlargement within the last 20 days. The animal was successfully managed using a combination of different drugs for the induction of parturition and supportive fluid therapy to avoid hypovolemic shock due to the sudden expulsion of allantoic fluid. The importance of early diagnosis, correct decision fluid therapy, and proper management with strategic medication to avoid hypovolemic shock and save the life of the animal is highlighted.

Introduction

Hydroallantois is a gestational disorder in cattle and buffalo that occurs in the last phase of the third trimester, characterized by a sudden increase in allantoic fluid leading to the bilateral enlargement of the abdomen. The physiopathology of hydroallantois is related to the reduction of placental vascularization, metabolic changes in the placental tissue and fetal membranes, and accumulation of fetal fluids. Hydroallantois is a rare condition that can cause septic metritis and retention of fetal membranes. The diagnosis and treatment of hydroallantois depend on the degree of severity of the condition and prognosis. The present paper reports a successful management of hydroallantois in a 10-year-old Murrah buffalo. The animal was treated using a combination of different drugs for the induction of parturition and supportive fluid therapy to avoid hypovolemic shock due to the sudden expulsion of allantoic fluid. The importance of early diagnosis, correct decision fluid therapy, and proper management with strategic medication is highlighted to avoid hypovolemic shock and save the life of the animal.

Treatment

Firstly fluid therapy was given to save the animal from hypovolumic shock. Inj ringer lactate @ 8 litre and Inj. Intalyte @ 10 litre were given intravenously. Thereafter for the treatment of incomplete cervical dilation, Inj. betamethasone @ 40mg, Inj. cloprostinol @ 500 µg, Inj. valethamate bromide @ 48 mg, Inj. diethylstilbestrol

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@ 30 mg were administered intramuscularly. After six hours of therapy, cervix was sufficient dilated then water bag was punctured with a thin needle. Approximate 150 litre of yellowish colored fluid was escaped out (Figure 2). Remaining dilation of cervix was done manually. Fetus was in posterior presentation. During the expulsion of fetus, fetal parts were broken on traction. Fetus was small sized and whole of the skin of fetus was hairless. Placenta came out along with fetus (Figure 3). There was drastic reduction in the size of abdomen after expulsion of fetus and large amount of allantoic fluid (Figure 4). Post obstetrical procedure, antibiotic, antihistaminic, NSAID were administered. Animal recovered uneventfully within 7 days of follow up treatment and advice.

Discussion

The present communication reports the typical case of hydroallantois in a Murrah buffalo. The condition is characterised by rapid accumulation of clear, watery and amber coloured allantoic fluid over a period of 5 to 20 days in last gestation and is always giving suspicion for twin/triplet pregnancy (Morrow, 1986). Excessive fluid accumulation in hydroallantois condition results in abdominal distension and sometimes loss of condition and recumbency with consequences of fatality to dam (Noakes, 2009). The septic metritis and retention of fetal membranes are common sequelae of hydroallantois (Roberts, 1971). In the present case, size of the abdomen was extensively distended. If the case is not diagnosed and treated early, in advanced conditions the animal is unable to rise and the prognosis is grave. This condition is seen sporadically in dairy animals and usually affects both foetus and foetal membranes (Napolean, 2012). In the present case, combination of different drugs was administered for the induction of parturition and supportive fluid therapy was given to avoid hypovolemic shock due to sudden expulsion of allantoic fluid. The treatment protocol of hydroallantois depends on the degree of severity of the condition and prognosis. In the present case, prognosis of the case was good and animal regained the normal health within next ten days.

Conclusion

It was concluded that early diagnosis, correct decision fluid therapy, and proper management followed by strategic medication are important to avoid hypovolemic shock and to save the life of the animal.

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