

Therapeutic Management of Hydrallantois in a Buffalo

M. Palanisamy¹, S. Manokaran² and M. Selvaraju³

Department of Clinics

Teaching Veterinary Clinical Complex

Veterinary College and Research Institute

Tamil Nadu Veterinary and Animal Sciences University (TANUVAS)

Namakkal - 637001 (Tamil Nadu).

Abstract

An eight and half months pregnant buffalo heifer was reported with history of sudden bilateral abdominal distension. Based on history, vaginal and rectal examination the case was diagnosed as hydrallantois. The pregnancy was terminated with Dinoprost tromethamine and Dexamethasone. The cervix was fully dilated after 55 hours and a dead female fetus was manually removed. Animal recovered uneventfully.

Keywords: Buffalo; heifer; hydrallantois

Introduction

Hydrallantois or hydrops of allantois is a pathological condition affecting pregnant uterus characterized by rapid accumulation of watery, amber colored fluid inside allantoic cavity over a period of 5-20 days in late gestation and is always giving suspicion for twin/triplet pregnancy (Morrow, 1986). Roberts (1971) stated that dropsical condition usually affects both fetus and fetal membranes. If the case is not diagnosed and treated early, in advanced conditions animal is unable to rise and prognosis is grave. Perusal of literature revealed that report of hydrallantois in buffaloes especially in heifers is rare. Hence, this present communication represent a case of hydrallantois and its successful treatment in a buffalo heifer.

History and Observation

A non-descript buffalo heifer aged three and half years in its first gestation was presented with history of sudden bilateral distension of abdomen (Fig. 1), anorexia and constipation progressing for past 10 days. The animal was about eight and half months pregnant and was bred by natural service. Clinical examination of animal showed body temperature of 37°C, respiration rate of 24/minute, heart rate of 76/minute and bilaterally distended abdomen. The buffalo had difficulty in

walking with stiff and slow gait. The vaginal examination revealed patent vaginal passage and closed external os of cervix. The rectal examination revealed that uterus was filled with huge quantity of placental fluid which was obliterating towards pelvic brim. It was not able to palpate fetus while performing rectal examination. With history, clinical observations, rectal and vaginal examinations, case was confirmed as hydrops and decided to terminate pregnancy.



Fig. 1: Bilateral distended abdomen in hydrallantosis

Treatment

The buffalo was administered with inj. Dinoprost tromethamine (Lutalyse^a, 50 mg, i/m) and inj. Dexamethasone (24 mg, i/m) to terminate pregnancy (Ramachandraiah *et al.*, 1994 and Manokaran, 2005). After 55 hours of prostaglandin injection, the cervix was fully dilated with intact fetal membranes. Rupture of fetal membranes resulted in 90-100 liters of amber colored allantoic

1 Associate Professor and Corresponding author.

E-mail: drmpsamy@gmail.com

2. Assistant Professor

3. Professor and Head

Hydrallantois in buffalo

fluid gushing from uterus which confirmed our diagnosis as hydroallantois. An anteriorly presented dead female fetus was delivered by manual traction. The placenta was edematous, leathery and fastly adhered to caruncles. Some caruncles were hypertrophied and larger in size and few were small. Following fetal delivery inj. Calcium borogluconate (450 ml, i/v) and inj. Oxytocin (40 IU, i/v) were administered. The animal was treated with inj. Enrofloxacin (2000 mg, i/m), inj. Meloxicam (225 mg, i/m), inj. DNS (7 liters, i/v) and inj. Chlorpheniramine maleate (225 mg, i/m). The antibiotic and antihistaminics were continued for one week and dam recovered uneventfully.

Discussion

Hydrallantois could usually be associated with a diseased uterus in which most of caruncles in one horn were affected, become not functional and atrophied rest of the placentomes in other horn were enlarged, edematous and possibly diseased (Roberts, 1971). The excessive accumulation of fluid in allantoic cavity could be due to structural and functional changes in allantois chorion including its vessels with transudation and

collection of fluid differing from normal allantoic fluid. The hydronephrosis of fetal kidneys could result in polyurea which may also cause excessive accumulation of fluid inside the allantoic cavity. In the present case tough and leathery placenta and cystic enlarged fetal kidneys were observed as per Roberts (1971). The continuous treatment following fetal delivery would have avoided the post hydrops complications and early recovery of the buffalo.

References

- Drost, M. (2007). Complications during gestation in cow. *Theriogenology* **68**: 487- 91.
- Manokaran, S. (2005). Clinical management of hydroamnios and hydroallantois by dinoprost. *Ind. J. Small Rumin.* **11**: 86.
- Morrow, A.D. (1986). In: *Text Book of Current Therapy in Theriogenology*, 2nd edn., W.B.Saunders Company, Philadelphia, USA, pp. 207-08.
- Ramachandraiah, K., Mohan Reddy, A.R. and Veerabramhaiah (1994). Treatment of hydroallantois in cattle. *Ind. Vet. J.* **71**: 171-73.
- Roberts, S.A. (1971). In: *Text Book of Veterinary Obstetrics and Genital Diseases*, 2nd edn., CBS Publishers and distributors, New Delhi, India, p. 180-83.

a - Brand of Zoetis Animal Health, Mumbai



XXXIVth Annual Conference of Society of Animal Physiologist of India (SAPI)



Kerala Veterinary and Animal Sciences University (KVASU), Thrissur, Kerala would be hosting the 'XXXIVth Annual Conference of SAPI' in November, 2015.

For further details log on to <http://www.sapi.in/>