

## CLINICAL MANAGEMENT OF HYDRAMNIOS COUPLED WITH BULL DOG CALF IN A JAFFARABADI BUFFALO

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### ABSTRACT

A successful management of dystocia due to Hydramnios coupled with bull dog calf in a Jaffarabadi buffalo was reported.

**Keywords:** *Bubalus bubalis*, buffaloes, bull dog calf, hydramnios, Jaffarabadi buffalo

### INTRODUCTION

Dropsy of amniotic and allatoic sacs contain excessive quantities of fetal fluid and referred as Hydramnios or Hydrallantois, respectively. Hydrallantois is much more common than hydramnios but later is always seen in association with specific fetal abnormalities such as the bull dog calf in the Dexter, which may occur as early as the third or fourth months of gestation (Noakes *et al.*, 2009). About 20 to 100 liters of fluid may accumulate (normally 4 to 8 liters). Principal reason for this condition is congenitally defective fetus with impaired swallowing. The fluid may be inhaled in bronchi and large amount of saliva will be constantly produced. Abdomen is pear shaped and less tense because of gradual

filling. This condition is more common in cattle, less common in sheep and uncommon in mare. Therefore, the case of Hydramnios with bull dog calf and its delivery by termination of pregnancy, mutation and forced traction in Jaffarabadi buffalo was placed on record.

### CASE HISTORY AND OBSERVATIONS

A twelve-year-old pluriparous Jaffarabadi buffalo with 9 months and 10 days of gestation period brought to the Teaching Veterinary Clinical Complex, Veterinary College, Junagadh, Gujarat, India with the history of pear shape enlarged abdomen (Figure 1 and 2), partial off feed, reluctant to move and no progress in signs of parturition. The animal was dull, depressed and stressed. Clinical examination revealed normal vulvar lips with slight relaxation of vagina, rapid respiration rate and pulse rate with rectal temperature of 102.5°F. However, gynaeco-clinical examination revealed closed cervix, normal placentomes palpated, normal fremitus and fluid filled enlarged uterus but unable to palpate fetus or fetal extremities. On the basis history and gynaeco-clinical examination, buffalo was diagnosed as suffering from dropsy of fetal membranes.



Figure 1. Severe bilateral abdominal distension (back).



Figure 2. Severe bilateral abdominal distension (side).



Figure 3. Slow release of foetal fluid.



Figure 4. Buffalo after recovery.



Figure 5. Bull dog calf.



Figure 6. Protrusion of tongue and absence of eyes with short limbs and ascites.

## TREATMENT AND DISCUSSION

Looking to the stressful condition of buffalo and enlarged abdomen parturition induced by Inj. of PGF<sub>2</sub> $\alpha$  500  $\mu$ g (Cloprostenol, 250  $\mu$ g/ml, 2 ml) and Inj. Dexamethasone sodium phosphate 5 ml I/V, intravenous solution Dextrose normal saline (DNS 5%) 5 liters, intramuscular Inj. Enrofloxacin 5 mg/Kg BW, Inj. Meloxicam 0.5 mg/Kg BW and Inj. Chlorphenniramine maleate 1 mg/Kg BW were administered to patient and waited till opening of cervix. After 24 h of PGF<sub>2</sub> $\alpha$  treatment again buffalo administered with intravenous fluid therapy as well as antibiotics and analgesic as stated above. On mid night of second day of treatment, animal showed parturient signs. Per vaginal examination revealed properly dilated cervix. Immediately water bag ruptured by using BP blade and about 45 to 50 liters of allantois fluid was drained out (Figure 3). Then amniotic bag ruptured manually, and hand deeply inserted into amniotic bag in search of fetus which was found deep in uterus towards udder. First hind legs of foetus (Figure 5) tied by using cotton rope and foetus was taken into birth canal in posterior longitudinal presentation and in dorso sacral position by using traction but pot belly condition preventing the delivery of fetus (Figure 5). Embryotomy knife was used to put stab incision on the right lateral abdomen and fetal abdominal fluid drained. Hence, after reduction in size of fetal abdomen, dead fetus was taken out by traction. To avoid hypovolemic shock due to sudden release of fluid in patient, intravenous fluid therapy DNS (5%) 5 liters, Ringer's Lactate (RL) 2 liters, Calcium borogluconate 250 ml S/C, Inj. Dexamethasone sodium phosphate 10 ml and Inj. Oxytocin 30 IU I/V was administered during dystocia handling. Antibiotics, analgesic, and fluid therapy was continued for next three days. The animal recovered

on next day (Figure 4). In the case of dropsy of fetal membranes needs termination of pregnancy as a therapy and in present case by using combined therapy of prostaglandins and dexamethasone pregnancy successfully terminated (Pandey *et al.*, 2014). Bull dog calves are characterized by short limbs and neck and swollen cranium with short, depressed face, with protruding tongue and cleft palate. The condition is inherited in several breeds of cattle but is very common in dexters also called as chondrodystrophic dwarfism with hydrocephalus. Such type of foetal monster is due to simple autosomal recessive gene with some modifiers (Roberts, 1971). Dystocia due to bull dog calf have been reported in indigenous buffalo (Wani *et al.*, 2015).

## REFERENCES

- Noakes, D.E., T.J. Parkinson and G.C.W. England. 2009. *Veterinary Reproduction and Obstetrics*, 9<sup>th</sup> ed. W.B. Saunders Publication, London, UK. p. 141-143.
- Pandey, A.K., G. Singh, S. Kumar, K. Kumar and R.A. luthra. 2014. Therapeutic management of Hydroallantois- A report of 22 buffaloes. *Intas Polivet*, **15**(2): 211-214.
- Robert, S.J. 1971. *Veterinary Obstetrics and Genital Diseases*, 2<sup>nd</sup> ed. CBS Publishers and Distributors, Delhi, India. p. 70-73.
- Wani, A.A., Tawheed, S. Shafi and R.A. Chowdhary. 2015. Dystocia due to a bulldog calf in a she buffalo (A case report). *Buffalo Bull.*, **34**(2): 147-148. Available on: [https://kukrdb.lib.ku.ac.th/journal/BuffaloBulletin/search\\_detail/result/310234](https://kukrdb.lib.ku.ac.th/journal/BuffaloBulletin/search_detail/result/310234)