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Hydrocephalic Monster in a non Descript Buffalo

A.D. Patil*, C. K. Lakde, S. K. Sahatpure, Chandini and Kamaljit

Teaching Veterinary Clinical Complex,

Nagpur Veterinary College, Maharashtra Animal & Fishery Sciences University, Nagpur, Maharashtra, India

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Corresponding author:

rupanil.1@rediffmail.com

Excessive accumulation of fluid in arachnoid and /or in ventricular system of cranium lead to large size of cranium refers to hydrocephalus (Arthur *et al*., 2001). It is one of the rare congenital anomalies seen in cattle and buffalo while occasionally in ewe and doe (Dhaliwal *et al*., 1998). It may be caused due to abnormal development of fetus with genetic, nutritional and environmental factors (Kalman, 1989). An autosomal recessive gene is responsible for many hereditary cases but intrauterine infections and nutritional factor have not been fully evaluated except relationship of blue tounge virus with hydrocephaly (Upasana *et al.,* 2012). Deficiency of Vitamin A may be a potent cause of hydrophalus in buffalo (Arthur *et al.,* 2001).

Case history and Clinical observation

A ten year old non-descript buffalo was presented to the Obstetrical Ward, Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur with the history of full term gestation in her fourth parity. It was observed that the buffalo failed to deliver fetus since 12 hrs. The alanto-chorion membrane was ruptured as the case was unsuccessfully handled by local quack. The history of breeding was with natural service by available buffalo breeding bull with no pedigree record. “No any complication was reported during her previous parturitions”.

Vaginal examination revealed dilated cervix and enlarged abnormal fetal head was palpated. The fetus was in the anterior longitudinal presentation, dorso-sacral position with extended fore limbs. The ample quantity of fluid was palpated in fetal cranium and thus it was confirmed a case of hydrocephalic fetal monster.

Treatment and Discussion

Epidural anesthesia (2% lignocaine HCl, 7 ml) was administered in first inter-coccygeal space. Inj. CPM @ 10 ml, fluid therapy was instituted immediately after reporting the case.

Carboxyl methyl cellulose sodium @ 20 gm per litre of luke warm water was poured in the birth passage for lubrication of birth canal. Fore limbs were tied with cotton rope for application of traction force. Smooth skin area was palpated on cranium of fetal monster and by use of long sharp needle, it was punctured. Maximum fluid was drained by applying palm pressure on the fluid filled area on fetal cranium which resulted in considerable reduction in size of fetal head. Dead female fetus was delivered per vaginum after puncture of cranium with gentle traction. Placenta was also removed immediately. It was confirmed hydrocephalic monster in a non-descript buffalo and monster was removed non-surgically per vaginum.

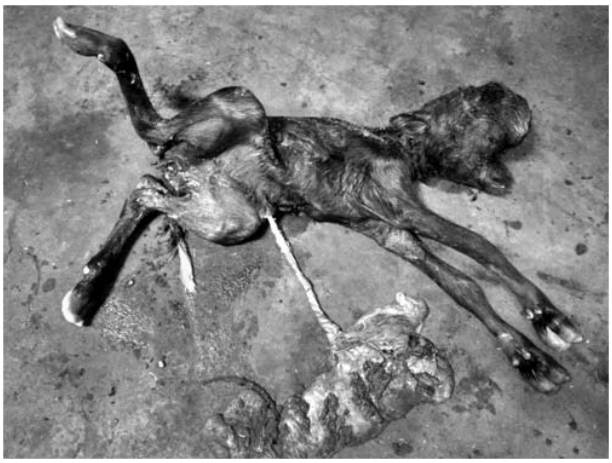

Fig. 1 : Hydrocephalus fetus in a non descript buffalo

Fig. 2 : Dissected hydrocephalic fetus

The monster was characterized by small oral cavity without forehead, hollow cranium filled with blood tinged fluid resembling to a large size ball (Fig.1), incomplete development of cranium with normal orbits, ears, neck , normal thoracic cavity and vertebral column, intact umbilical cord, both fore and hind limbs. Frontal bone was absent with incomplete fusion of skull (Fig. 2). Dilation of ventricular system and sub-arachnoid space was observed due to accumulation of fluid in the cranium that led to hydrocephalus (Noakes, 2009). Cranial bones were found markedly thin with epical cap of the bony skull missing and thinning of frontal, parietal and temporal skull bones (Sharma *et al.,* 2015). Similar findings have also been reported earlier in cases of hydrocephalus (Patil *et al*., 2008 and Upasana *et al*., 2012). Etiology of hydrocephalus could not be ascertained but its vaginal delivery was possible through obstetrical maneuvers (Honparkhe *et al.,* 2012).

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