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A rare case of dystocia due to hydrocephalic fetus in goat and its clinical management

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Abstract

A local non-descript breed of full-term pregnant goat with difficult in birth for past 3 hours was presented as an emergency case. Fetal examination revealed a fetus was found obstructed in the internal os with the excessive swelling over the head. Correction of dystocia was undertaken by caesarean-section and the dead fetus was successfully taken out. The case was followed for five days with antibiotic and analgesics and uneventful recovery of animal noticed.

Keywords: Dystocia due, hydrocephalic fetus, goat, clinical management

Introduction

Hydrocephalus is a congenital anomaly refers to have excessive swelling of the cranium due to accumulation of Cerebrospinal in the ventricular system (Arthur *et al.*, 2001) [2]. Disturbance in the free passage of CSF into the arachnoid space or failure in its balance between formation and resorption lead to excessive accumulation of fluid inside the cranium causes fetal dystocia during parturition (Salunke *et al.*, 2001) [11]. The predisposing causes for hydrocephalus have been linked with incomplete penetrance of autosomal recessive gene (Leipold and Dennis, 1986) [6]. However, some infectious agents like teratogenic viruses and nutritional factors like hypovitaminosis A also predispose this condition (Roberts, 1986; Kalman, 1989) [10, 4]. In more severe cases of hydrocephalus there is marked thickening of the cranial bones (Noakes *et al.*, 2009) [7]. Occurrence of hydrocephalus is documented in calves (Sharda and Ingole, 2002, Purohit *et al.*, 2006, Prakash *et al.*, 2016) [12, 9, 8] mare (Ferris *et al.*, 2011) [3] buffalo (Kumaresan *et al.*, 2003) [5] and pig (Arthur, 1975) [1]. The present case report is the successful management of dystocia due to fetal hydrocephalus in a goat.

Case history and clinical observation

A four year-old female nondescript full term pregnant goat weighing around 14 kg was brought with a history of straining since last 4 hours with no progression of parturition and the water bag was already ruptured. Physical examination revealed dry pale mucous membrane, hypothermia (37.7 °C), respiratory rate of 37 cycles/min and tachycardia (98 bpm). On lateral recumbent, the goat appeared exhausted and dull. External genitalia examination revealed amniotic discharge from the vulva and no sign of embryonic membranes or fetal parts. During per vaginal examination, the cervix was found open and a fetus was found obstructed in the internal os with the excessive swelling over the head and fetal extremities were unable to palpate. Palpation of fetus revealed the absence of suckling and eyeball reflexes suggests that fetus was already dead. On the basis of clinical observations, the case was diagnosed as dystocia due to fetal hydrocephalus tentatively, which could only confirmed after delivery of the fetus.

Treatment and Discussion

The treatment was commenced with 0.5 ml of 2% lignocaine hydrochloride for epidural anesthesia and antihistaminic therapy with chlorpheniramine maleate (2ml IM). Attempts to made per vaginal delivery were failed because of difficulty in grasping the head and to make a stab incision in cranium to relieve the fluid. Normally severe form of dystocia due to hydrocephalus cannot be relieved by mutation and forced traction. Therefore, it was decided to perform caesarian section to manage dystocia. Under local and caudal epidural anaesthesia, caesarean-section was performed on the left flank region, adopting the standard operating

procedure and the goat was positioned at standing condition. A hydrocephalic dead male fetus was recovered through caesarian section (Fig.1). The placenta was removed as much as possible. Surgical site was flushed with normal saline and an intra-uterine ecobolic boli Furea were poured into the uterus. The uterine and laparotomy incisions were sutured as per standard technique. The goat was kept under post-operative care with appropriate antibiotic, anti-inflammatory, fluid therapy and antiseptic dressing of the incision daily for five days. The sutures were removed on 14th post-operative day. The animal showed uneventful recovery.

in a jersey cow calf-a case report. *Indian Vet J.* 2002;79:965-66.



Fig 1: Hydrocephalic dead male fetus

References

1. Arthur GH. *Veterinary reproduction and obstetrics.* Fourth edition. Bailliere Tindall, 1975, 115-116.
2. Arthur GH, Noakes DE, Parkinson TJ, England GCW. *Veterinary Reproduction and Obstetrics*, 8th ed. WB Saunders company, Philadelphia, Pennsylvania, USA, 2001, 131-132.
3. Ferris RA, Sonnis J, Webb B, Lindholm A, Hassel D. Hydrocephalus in an American miniature horse foal: A case Report and Review. *J Equine Vet Sci.* 2011;31:611-614.
4. Kalman TS. *Congenital Malformations in Laboratory and Farm Animals.* Academic Press. INC San Diego, California, USA, 1989.
5. Kumaresan A, Garg A, Mahapatra US, Shankar U, Agarwal SK. Dystocia due to hydrocephalus calf in a buffalo. *Indian J Anim Reprod.* 2003;24:82.
6. Leipold HW, Dennis SM. Congenital defects affecting bovine reproduction. In: *Current Therapy in Theriogenology.* D.A. Morrow (Edn) W.B. Saunders Company Philadelphia, 1986, 1105.
7. Noakes DE. *Arthur's Veterinary Reproduction and Obstetrics*, 8th ed. W.B. Saunder's Comp., Philadelphia, USA, 2009.
8. Prakash S, Selvaraju M, Ravikumar K, Palanisamy M. Obstetrical management of fetal hydrocephalus in a Kangayam cow. *Indian Vet J.* 2016;09:85-86.
9. Purohit GN, Gaur, Sharma A. Dystocia in Rathi cows due to congenital hydrocephalus. *Indian J Anim Reprod.* 2006;27:98-99.
10. Roberts SJ. *Veterinary Obstetrics and Genital Diseases*, 3rd ed. Edwards Brothers, Michigan, USA, 1986, 77.
11. Salunke SP, Amle MB, Zambre PC. Dystocia due to hydrocephalus in Pantharpui buffalo. *Indian J Anim Reprod.* 2001;22:96.
12. Sharda R, Ingole SP. Congenital bilateral hydrocephalus