

SURGICAL MANAGEMENT OF BOVINE DYSTOCIA CAUSED BY HEMIMELIA FOETUS

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Received : 26.03.2019; Accepted : 31.03.2019

SUMMARY

A four year aged non-descript cow at full term of pregnancy was brought with history of labour pain for last ten hours but unable to deliver the foetus even after attempts by the local veterinary field worker. Per-vaginal examination revealed foetal lodgement in the birth canal in posterior longitudinal presentation, lumbo-sacral position and deep palpation revealed presence of hard mass without any appendages and unable to expelled it out through the birth canal. Caesarean operation was performed for successful removal of the foetus from uterus.

Key words: Allantoic, Caesarean section, Dystocia, Hemimelia

Foetal abnormalities and monstrosities of various kinds have been reported in bovine (Roberts, 2004) and occur sporadically (Arthur *et al.*, 1989). 'Hemimelia' the absence of portion of limb is a congenital malformation diagnosed in the new borns of domestic animals (Lapointe *et al.*, 2000; Vermunt *et al.*, 2000). The etiology of limb malformation may be either hereditary or environmental factors or combination of both. The present case report describes about successful surgical management of a hemimelia calf from a cow suffering from dystocia.

A non-descript cow of aged 4 years at full term of pregnancy was brought to Veterinary Clinical Complex, Lakhimpur College of Veterinary Science, North Lakhimpur, Assam with a history of labour pain for last ten hours but unable to deliver the foetus even after attempts by the local veterinary field worker. The allantoic and amniotic bags had already been ruptured. Per-vaginal examination under epidural analgesia revealed foetal lodgement in the birth canal in posterior longitudinal presentation, lumbo-sacral position and deep palpation revealed presence of hard mass without any appendage. Attempt through manual traction was failed due to improper space in the birth canal, posterior longitudinal presentation of the foetus. Caesarean section was planned to deliver the fetus.

The lower flank of the left abdominal region was prepared aseptically for caesarean section. After producing field block at conventional paramedian region parallel to milk vein by 2% lignocaine hydrochloride, caesarean section was performed as per routine procedure (Dutt *et al.*, 2019) and dead fetus with hemimelia of the both hind limbs was delivered. Post-surgical treatment of dam involved parenteral administration of antibiotic Ceftriaxone @ 10mg/kg body

weight IM for 7 days, tolfenamic acid @ 2mg/kg body weight IM as analgesic cum anti-inflammatory at an interval of 72 hours, and normal saline @ 10ml/kg body weight along with multi-vitamins as intravenous fluid therapy. The Physical and anatomical examination of the foetus revealed that it was a male with development of penis, rectum and anus. Necropsy of the foetus revealed that except the hemimelia of the both hind limbs, the development of the other organs were seemed normal. Animal had an uneventful recovery.

Importance of monstrosities in livestock is of great importance because of the genetic transmission of such malformations. It is difficult to determine the cause of the observed limb malformation. Chromosomal aberrations and mutations of the homeotic and other genes as potential causes of limb malformations have been reported by Goodman *et al.* (2002). Congenital abnormality due to autosomal recessive gene seemed to be the most probable cause reported by Dhindsa *et al.* (2016). Surgical intervention for judicious handling of dystocia in bovine cow has been recommended to reduce stress from unsuccessful attempts through traction and better recovery rate.

REFERENCES

- Arthur, G.H., Noakes, D.E. and Pearson, H. (1989). Veterinary reproduction and obstetrics. 8th Edn. W.B. Saunders Co. Ltd., London. pp. 109-112.
- Dhindsa, S.S., Singh, A.K. and Wani, A.A. (2016). Congenital abnormality (Amelia) in Murrah buffalo foetus. *Vet Pract.* **17(1)**: 83.
- Dutt, R., Singh, G., Jasmer and Chandolia, R.K. (2019). Delivery of a *Schistosoma reflexus* monster through caesarean section in a Murrah buffalo. *Buff. Bull.* **38(1)**: 165-168.
- Goodman, F.R. (2002). Limb malformations and the human HOX genes. *Amer J. Med. Genet.* **112**: 256-65.
- Lapointe, J.M., Lachance, S. and Steffen D.J. (2000). Tibial hemimelia, meningocele and abdominal hernia in Shorthorn cattle. *Vet. Pathol.* **37**: 508-11.
- Robert, S.J. (2004) Veterinary obstetrics and genital diseases. Indian reprints, CBS Publishers and distributors, Delhi.
- Vermunt, J.J., Burbidge, H.M. and Thompson, K.G. (2000). Unusual congenital deformities of the lower limb in two calves. *New Zealand Vet. J.* **48**: 192-194.



Fig. 1: Foetus with absence of hind limbs

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