

A Rare Case of *Perosomus elumbis* in a non-descript calf

Shailendra Kumar Tiwari, Deepak Kumar Kashyap*, Devesh Kumar Giri, Govina Dewangan

College of Veterinary Science & Animal Husbandry
Indira Gandhi Krishi Vishwa Vidyalaya, Anjora, Durg, Chhattisgarh, India.

* Corresponding author email: deepakkashyap31@gmail.com

Received: 15-06-2011, Accepted: 02-07-2011, Published Online: 22-09-2011

doi: 10.5455/vetworld.2011.515-516

Introduction

Perosomus elumbis is an occasionally found congenital anomaly of unknown origin. It is characterized by partial or complete agenesis of lumbar, sacral and coccygeal vertebrae and ankylosis of the hindlimbs (Son, 2008). *Perosomus elumbis* occurs in ruminants and swine. The primary abnormality is a hypoplasia or aplasia of the spinal cord of the fetus which ends in the thoracic region. The regions of the body including the hind limbs, which are normally supplied by the lumbar and sacral nerves exhibit muscular atrophy and joint movement does not develop. The conspicuous feature for the obstetrician is the rigidity of the posterior limbs (Arthur *et al.*, 2001). The present report deals with a case of newborn non-descript calf showing congenital defect of *Perosomus elumbis* which was relieved by caesarean section.

Case History

A full term pregnant, non-descript cow of age 10 years and 4th parity belonging to a local farmer was presented to the Department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry, Anjora, Durg (C.G.) with the history of labor pains for 20 hours. The further anamnesis revealed rupture of water bags about 12-15 hrs before the animal was presented.

Clinical Observations

The animal was dull, depressed, exhausted, and partially anorectic and the animal was straining severely, prior to presentation. Local veterinarian was called for help but failed to deliver the calf. Previous calving of the animal was reported to be normal. Per vaginal examination after proper lubrication revealed that the fetus was in anterior longitudinal presentation. Repulsion and deeper exploration revealed abnormal size of the fetus. The fetus was dead. Caesarean

section was performed as the delivery per vaginam was not possible.

Surgical Treatment : The calf was delivered through caesarean section under local infiltration analgesia using standard procedures.

Discussion

Detailed examination of the abnormal fetus revealed an imperfectly formed fetus weighing about 7-8 kg. The fetus had nearly normal forelimbs but with flexure and ankylosis of the hind limbs and shoulders along with vertebral and pelvic malformations suggestive of arthrogryposis of certain joint (Figure I).



Figure-I. *Perosomus elumbis* in a non-descript calf.

The limbs showed abnormality in that they were thickened in thigh region and felt doughy. *Perosomus elumbis* is seen occasionally in cattle and swine and is characterized by vertebrae and spinal cord caudal to the thoracic region. The monster has a small, flattened and deformed pelvis with strongly ankylosed and flexed hind limbs and atrophy of the muscles of the rear quarters (Roberts, 2004). In most of the cases, surgery is the ultimate option for the management of *perosomus elumbis* as suggested by Testoni *et al.*, (2005). These findings simulate with those of Son *et*

al., (2008) and Marrow, (1986) in Holstein calf which was successfully treated by surgery. The surgical treatment was adopted as per the standard procedure outlined by Kumar (1996). Thus, it is concluded that perosomus elumbis is a rare condition leading to dystocia necessitating caesarean section.

Summary

A rare case of dystocia due to *Perosomus elumbis* in a cow and its successful surgical management has been reported.

References

1. Arthur, G.H., Noakes, D. E., and Pearson, H. (2001). Author's Veterinary Reproduction and Obstetrics, 8th Edn., W.B. Saunders Company, Philadelphia, : pp 88-89.
2. Kumar, A. (1996). Veterinary Surgical Techniques, Vikas Publishing House Pvt. Ltd. New Delhi. pp: 354-358.
3. Marrow, David. A. (1986). Current Therapy in Theriogenology, Diagnosis, Treatment and Prevention of Reproductive Diseases in Small and Large Animals, 2nd Edn., W.B. Saunders Company, Philadelphia. pp:183.
4. Roberts, S.T. (2004). Veterinary Obstetrics and Genital Diseases, 2nd Edn., CBS Publishers and Distributers, New Delhi : pp 70-71.
5. Son, J.M., Yong, H.Y., Lee, D.S., Choi, H.J., Jeong, S.M., Lee, S.W., Shin, S.T. and Cho, J.K. (2008). A Case of Perosomus Elumbis in a Holstein Calf, *J Vet Med Sci.*, 70(5):521-3.
6. Testoni, S., Mazzariol, S. and Gentile, A. (2005). Perosomus Elumbis in Four Calves, *Slov. Vet. Res.*, 43 : 17-29.

* * * * *