OBSTETRICAL MANAGEMENT OF PEROSOMUS HORRIDUS FETAL MONSTER WITH BRACHYNATHISM IN A GRADED MURRAH BUFFALO

Sarath Thulasiraman[1], Suresh Kumar Raju[1,*], Kannan Thandavan Arthanari[2], Pugazharasi Chidambaram[3], Arunmozhi Narayanasamy[3], Umamageshwari Jayakumar[1] and Reena Devarajan[1]

Received: 04 December 2020
Accepted: 11 June 2022

ABSTRACT

A four years old, full term pregnant, primiparous non-descriptive buffalo was presented to the Madras Veterinary College Teaching Hospital, Chennai, Tamil Nadu, India with the history of straining for the past 10 h and ruptured water bag with no further progress in parturition. Based on the obstetrical examination, the case was diagnosed as dystocia due to foetal monstrosity and a *Perosomus horridus* monster foetus was delivered per-vaginum successfully and the dam had an uneventful recovery.

Keywords: *Bubalus bubalis*, buffaloes, dystocia, foetal monster, *Perosomus horridus*

INTRODUCTION

Monstrosity is the developmental disturbance involving various organs and systems leading to great distortion of the foetus (Vegad, 2007). *Perosomus horridus* is characterized by general ankylosis and muscle contracture with "S" shaped multiple bending of spine from occiput to sacrum (Honparkhe, 2004). The vertebrae of the affected foetus are definitely abnormal, shortened and ankylosed, also with the ankylosed and deformed limb, neck and tail (Roberts, 1986). The occurrence of this monster causing dystocia was reported in cow (Sathiamoorthy *et al*., 2015; Dutt *et al*., 2018) and buffalo (Nanda *et al*., 1987; Napolean *et al*., 2008). In the view of rarity of *Perosomus horridus* monster in buffaloes, the present case is reported.

CASE HISTORY AND CLINICAL EXAMINATION

A four years old full term pregnant, graded Murrah buffalo on its first gestation was presented to Large Animal Obstetrics Unit, Madras Veterinary College Teaching Hospital, Chennai, Tamil Nadu, India with the history of constant straining noticed

[1]Department of Clinics, Madras Veterinary College, Tamil Nadu Veterinary and Animal Sciences University, Chennai, India, *E-mail: drskvet@yahoo.in

[2]Education Cell, Madras Veterinary College, Tamil Nadu Veterinary and Animal Sciences University, Chennai, India

[3]Department of Veterinary Gynecology and Obstetrics, Madras Veterinary College, Tamil Nadu Veterinary and Animal Sciences University, Chennai, India

Figure 1. *Perosomus horridus* foetal monster with kyphosis (yellow arrow) and brachynathism (red arrow).

Figure 2. *Perosomus horridus* foetal monster with ankylosis in the hind limbs (red arrow).

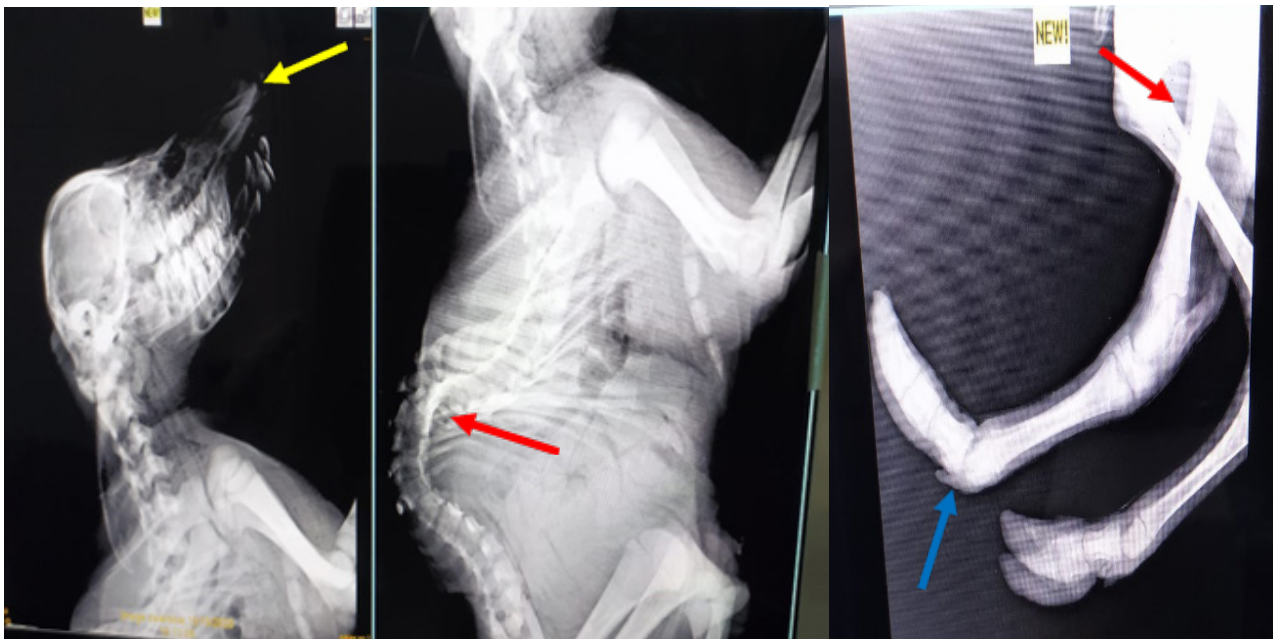

Figure 3. Radiography revealing brachynathism (yellow arrow), double "S" shaped curvature of the vertebral column (red arrow) and ankylosis (blue arrow).

for past 10 h and ruptured water bag before 7 h with no further progress in parturition. Clinical examination revealed normal vital parameters. Under low caudal epidural anaesthesia with 4 ml of 2% Lignocaine hydrochloride, per-vaginal examination revealed that the cervix was fully dilated and the foetus was found to be at anterior longitudinal presentation; dorso-sacral position; extended ankylosed forelimbs and head with brachynathism. Hence, the case was diagnosed as dystocia due to fetal monstrosity.

TREATMENT AND DISCUSSION

Following sufficient lubrication of birth canal, attempts were made to deliver the foetus by forced traction and a dead male *Perosomus horridus* foetal monster was delivered per-vaginally. The buffalo cow was treated with Ringer's Lactate 10 ml/kg B/W I/V, Inj. calcium borogluconate 300 ml slow I/V, ceftiofur 2.2 mg/kg BW I/M, meloxicam 0.2 mg/kg BW I/M, chlorpheniramine maleate 0.5 mg/kg BW I/M and 50 IU of oxytocin intramuscularly. Except oxytocin and calcium, the above said treatment was continued for the next three days and the animal had an uneventful recovery.

The detailed examination of monster fetus revealed Brachynathism (Parrot mouth), kyphosis of vertebral column at thoraco-lumbar region (Figure 1) and both the forelimbs and hindlimbs appeared shorter with marked ankylosis of joints (Figure 2). Radiological examination revealed the presence of Brachynathism, double "S" shaped curvature of the vertebral column (Figure 3) and

ankylosis of all the limbs, suggestive of *Perosomus horridus* foetal monster.

Perosomus horridus is a monster foetus with generalized ankylosis and contracture of muscles which is characterized externally by a short spine due to marked double S-shaped lateral twisting or curvature of the vertebral column (Roberts, 1971). The incidence of dystocia appears to be low in buffaloes. Khan *et al.* (2009) analyzed many reports and depicted the incidence of abnormal calvings in buffaloes to vary from 4.6% to 12.6%. Dystocia due to malformed fetuses was observed in 12.76% of buffaloes presented with dystocia (Singla and Sharma, 1992). These monsters are usually carried to full term causing dystocia due to curved spine and mal alignment of extremities which end up in dystocia and they often die during delivery or soon after their birth (Sharma *et al*., 2001). Etiology of such monsters is usually unknown but considered to be due to chromosomal defects (Morrow, 1986), especially due to simple autosomal recessive gene. Also, Sathiamoorthy *et al.* (2015) reported a bovine monster foetus with flattened and deformed pelvis. Cesarean section offers a safer method of delivery in such monster cases and per-vaginal delivery of Perosomus horridus fetal monsters in goat and buffalo has also been reported (Balasubramanian *et al*., 1995; Napoleon *et al*., 2008).

REFERENCES

Balasubramanian, S., B.R. Kumar, A. Subramanian and J. Rajasekaran. 1995. Caprine perosomus horridus fetal monster delivered pervaginum: A case report. *Indian Vet. J.*, **72**: 985.

Dutt, R., G. Singh and R.K. Chandolia. 2018. Dystocia due to *Perosomus horridus* monster in a Sahiwal cow- A case report. *Explor. Anim. Med. Res.* **8**(2): 218-219. Available on: https://www.animalmedicalresearch.org/Vol.8_Issue-2_December_2018/DYSTOCIA%20DUE%20TO%20PEROSOMUS.pdf

Honparkhe, M. 2004. Fetal malformations and their management in veterinary obstetrics. p. 136-144. *In . Obstetrical Interventions in Veterinary Practice*. Advanced Training Course Punjab Agricultural University, Ludhiana, Punjab, India.

Khan, H.M., M. Bhakat, T.K. Mohanty, A.K. Gupta, V.S. Raina and M.S. Mir. 2009. Peripartum reproductive disorders in buffaloes - An overview. *Vetscan*. **4**(2): 1-10.

Morrow, D.A. 1986. *Current Therapy in Theriogenology.* W.B. Saunders Co., Philadelphia, USA.

Nanda, A.S., R.D. Sharma and K.S. Roy. 1987. Dystocia due to perosomus horridus monster in buffalo. *Indian J. Anim. Reprod.*, **8**: 158.

Napolean, E., M. Unny, K. Jeyaraja and G. Vijaykumar. 2008. Perosomus horridus monster in a Murrah buffalo. *Indian Vet. J.* **85**: 93.

Roberts, S.J. 1971. Gestation period-embryology, teratology. *Veterinary Obstetrics and Genital Diseases*, 2nd ed. CBS Publishers and Distributors, New Delhi, India. 54p.

Roberts, S.J. 1986. Diagnosis and treatment of various types of dystocia. *Veterinary Obstetrics and Genital Diseases*, 3rd ed. CBS Publishers and Distributors, New Delhi, India. 336p.

Sathiamoorthy, T., S.S. Biswal, U.S. Kalyaan,

A. Sabarinathan, V. Keshari, P. Mohan, T. Sarath and S. Balasubramanian. 2015. *Perosomus horridus* foetal monster in a non-descript cow. *Indian J. Anim. Reprod.*, **36**(1): 62-63.

Sharma, A., V.B. Bishat, A.S. Negi and B.S. Negi. 2001. Dystocia due to perosomus horridus in ewe: A case report. *Indian Vet. J.*, **78**(12): 73-74.

Singla, V.K. and R.D. Sharma. 1992. Analysis of 188 cases of dystocia in buffaloes. *Indian Vet. J.*, **69**: 563-564.

Vegad, J.L. 2007. *Text Book of Veterinary General Pathology*, 2nd ed. International Book Distribution Company, Lucknow, India. 544p.