



Management of Dystocia due to Multiple Mal-dispositions in a Marwari Mare

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ABSTRACT

A Marwari mare with history of dystocia since last twelve hours was presented to the gynecology section of teaching veterinary clinics of GADVASU. Per vaginal examination revealed multiple fetal mal-dispositions as the cause of dystocia. After lubrication of birth canal, fetal position was corrected by mutation and the dead fetus was delivered using forced traction. Post-operative treatment was given to the mare. There was an uneventful recovery of the mare.

Key words: Dystocia, Mare, Marwari and Mal-disposition.

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INTRODUCTION

Dystocia in mare is perhaps one of the most challenging conditions faced by equine practitioners (Purohit, 2011). Parturition in mare is a rapid (30 minutes) and violent process, therefore duration from onset of second stage of labor to foal delivery has an important effect on the outcome of mare and foal (Byron *et al.*, 2003). Thus, equine dystocia is a true emergency and cases of mare dystocia with fetal postural defects threaten survival of both dam and fetuses. Long extremities of foal tend to predispose a mare to dystocia. Arthur *et al.* (1989) reported about 99% of foals in the anterior presentation and most cases resulted

from irregularity of presentation, position and posture of the fetus. Flexion of the limbs beneath the body is also a common cause of equine dystocia (Roberts, 1971). The present communiqué is to place on a rare case of equine dystocia due to multiple postural defects.

CASE HISTORY AND OBSERVATIONS

A pluriparous full term pregnant Marwari mare with a history of dystocia was presented to the gynecology section of teaching veterinary clinics of GADVASU. As per owner's

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statement the mare was straining continuously for twelve hours hitherto unable to deliver fetus and showing restlessness. The mare was anorectic since last twelve hours. On general examination, animal was dull and depressed and the conjunctival mucus membrane was congested. Before specific examination, tail bandage was applied to avoid irritation due to hairs. Thereafter, per-vaginal examination was done after proper lubrication of the birth canal using aqueous solution of carboxy-methyl-cellulose (CMC) (~2-3 % concentration). Per vaginal examination revealed fully dilated birth canal and anterior longitudinal presentation with multiple defects in position (dorso-pubic position) and posture (right deviation of neck, unilateral carpal flexion and crossing of hind limbs) of the fetus.

TREATMENT AND DISCUSSION

After taking the history and examination, 6 ml of 2% lignocaine hydrochloride was administered between first inter-coccygeal joint to attain epidural anesthesia. The dystocia was handled with mare being in standing position throughout the obstetrical maneuvers. Before treatment, around 10 L of aqueous solution of CMC (~2% concentration) was infused into genital tract of mare since fetal fluid was scarce and genital tract was dry. Thereafter, deviation of neck was corrected using a snare and the head was pulled out of the birth canal. The carpal flexion was corrected by moving the flexed limb in caudo-lateral direction and properly securing hoof to prevent injury to the birth canal. Thereafter, another limb was pulled by traction using chains and now the fetus position was corrected by rotating the fetus on longitudinal axis. Then traction was applied but traction efforts were unsuccessful in delivering the fetus. So, per-vaginal examination at this stage revealed crossing of hind limbs of fetus. Then hind limbs were corrected and the fetus was expelled using coordinated forced traction (Fig. 1).



Fig. 1. Dead male equine fetus delivered by mutational procedures and traction

The placenta was expelled simultaneously with the fetus. Thereafter, supportive treatment comprising of Inj. Tetanus toxoid (Tetanus toxoid; Zoetis Pvt. Ltd.) 5 ml I/M, Inj. Cefwell forte® (Cefoperazone plus sulbactam; Macwell pharma) 4.5 g IM., Inj. Megludyne® (Flunixin meglumine; Virbac Animal Health India Pvt Ltd.) 20 ml IM, Inj. Dexona® (Dexamethsone; Zydus AHL) 10 ml IM, Inj. Tcee® (Ascorbic acid; Titanic Pharmaceuticals Pvt. Ltd) 30 ml IM, Inj. Metrogyl® (JB Chemicals; Metronidazole 2500mg/500 ml) IV, Inj. Avil® (Chlorpheniramine maleate; MSD Animal Health) 10 ml IM and Inj. Dextrose Normal Saline (Dextrose 5%; Fresenius Kabi) 5 L IV was given to the mare for five days. Likewise, uterotonic liquid feed supplement (Liq. Uterovet 100 mL PO) was advised for next 10 days to hasten uterine involution.

Fetal mal-dispositions are one of the foremost causes of dystocia in mare (Dugdale, 2007). The incidence of dystocia due to maternal cause in mare is less than fetal cause of dystocia (Jackson, 2004). Unusual position of fetus occurs in latter part of the first stage or just prior to labor of parturition in mare when fetus is rotating from its dorso – pubic or dorso-lateral position into dorso – sacral position (Roberts, 1971). Abnormal postures includes lateral deviation of head and neck appears to be preponderance cause of severe dystocia (Dadarwal *et al.*, 2008), Wry neck posture (Rice, 1994), deviation of head-vertex, nape and breast head posture (Yuongquist, 1986), carpal flexion posture (Nahkashi *et al.*, 2008), shoulder flexion unilateral (Swimming posture) and bi-lateral (Christensen, 2008), foot nape posture (Dugdale, 2007), hock flexion posture, breech presentation (Frazer *et al.*, 2009). In the present case fetus was delivered per-vaginally by ample lubrication with CMC gel, followed by judicious mutational procedures. In difficult cases, fetus can be removed by either fetotomy or caesarean section (Youngquist, 1986). The ultimate decision may rest on the status of the fetus, duration and severity of the dystocia, economic value of the mare and fetus, clinician expertise, client preference, facilities available and other considerations. If a fetus is alive, a vaginal delivery may be attempted with the mare being conscious. However, if significant progress is not made in 15 to 20 minutes, the mare may be put under general anesthesia and an assisted vaginal delivery should be attempted. If progress toward a vaginal delivery is not forthcoming, a cesarean surgery is often performed.

CONCLUSIONS

In conclusion, dystocia due to fetal maldisposition are common in mare, and management of such cases require rapid apt intervention, precise judgement and correct obstetrical approach.

CONFLICT OF INTEREST

The authors declare no conflict of interest among themselves.

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