Short Communication

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# Per Vaginal Delivery of Foal through Fetotomy in a Mare with Fractured Pelvis

Sahil, Brijesh Kumar*, Lalit Patel, Kalpendra Kohli, Pradeep Chandra, Hitesh, Raman Yadav, Vandana and Tarun Kumar Sahu

Division of Animal Reproduction
ICAR – Indian Veterinary Research Institute, Izatnagar-243122, UP, India

## *ABSTRACT*

Dystocia in the mare is a very challenging situation because of long extremities of fetus, strong contraction by dam creating problems in correction of maldispositions. Careful handling of dystocia and efficient post-obstetrical management is key to the survival of the mare and foal and subsequent fertility of the dam. The current report describes a rare case of dystocia that involved both fetal and maternal causes. The maternal cause was the obstruction of the birth canal by a callus along with acute deviation of head and neck to the left side and bilateral knee flexion at the level of the pelvic brim which was efficiently treated by percutaneous fetotomy and mutations.

***Key words:*** Pelvic fracture, Fetotomy, Mare dystocia, Lateral Deviation

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## INTRODUCTION

Giving birth to a foal, also known as foaling is a quick and violent event in equine breeding (Thangamani *et al.*, 2018). In mare, dystocia is stated when 2nd stage of parturition exceeds 20 min. Mare and foal morbidity, mortality and future fertility depend on time and decision made during foaling (Freeman *et al.*, 1999). In comparison to other domestic animals, dystocia is uncommon in mares. Maternal or fetal factors can cause dystocia, with fetal causes being the most prevalent (Threlfall, 2007). Fetal factors include malpresentation (24%), malposition (30%) and maposture (86%). Moreover, dystocia occurred in anterior (99%), posterior (0.9%) and transverse (0.1%) presentation in mare. Malposture of long fetal extremities such as limbs, head, and neck of fetus in uterus are the main factors for fetal dystocia (Frazer *et al.*, 1997). For both the mare and the veterinarian, abnormal or delayed pregnancy that is likely to result in dystocia is a very difficult situation. (Purohit, 2011). Survivability of mare and foal, and subsequent fertility of mare depends on efficient management (Pynn, 2014). Different procedures are used to resolve

*Corresponding author.
*E-mail address:* drbrijeshvet02@gmail.com (Brijesh Kumar)
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dystocia in different farm animals and mare, including rotation, repulsion, traction, caesarean section and fetotomy (Frazer, 2007). There are two types of fetotomy, partial and complete fetotomy, and partial fetotomy treatment resolves 80% of dystocia in mare (Vandeplassche, 1987). If the head, neck, or limbs are positioned abnormally, dystocia is treated by resecting one or more parts of the fetus (Frazer, 1997). Therefore, the current report describes a rare case of acute lateral deviation of head and neck to the left side along with bilateral knee flexion and obstruction of birth canal by a callus that resulted in dystocia in mare, which was efficiently resolved by partial fetotomy and repulsion technique.

## CASE HISTORY AND OBSERVATIONS

A 5 years old primiparous mare was presented to Referral Veterinary Polyclinic (RVP), IVRI, Izatnagar with a history of complete gestation and straining for 4 hours. The water bag had ruptured three hours before presenting the case. General clinical examination revealed body temperature 100.4°F, heart rate 40 bpm, and respiratory rate 23/min. Per-vaginal examination revealed that, no viable reflexes was felt in fetus indicating it was dead and lying in anterior longitudinal presentation, dorsosacral position with acute left sided deviation of head and neck along with bilateral knee flexion. The large callus on the shaft of left ilium was palpable which was obstructing the expulsion of fetus through birth canal. The callus was formed due to the natural healing of fracture of pelvis that had occurred 1.5 years ago.

## TREATMENT AND DISCUSSION

Animal was restrained properly and casted in right lateral recumbency. After properl cleaning of perineal area and ample lubrication of birth canal with 1% Carboxy methyl cellulose was made. Animal was pre-medicated with Ceftriaxone 4g, and Tetanus Toxoid 5mL. After proper assessment of the animal for presentation, position and posture of fetus, it was decided that fetotomy was imperative for per vaginal delivery of fetus and hence, forelimbs were first amputated at the level of knee joint (Fig. 1). The acute deviation of head and neck was then corrected using long handle eye hook, the tension on the neck was maintained and decollation was done by fetotomy (Fig. 2). Thereafter, alternate traction was applied on both the amputated forelimbs and the fetus and fetus comes out in partially wrapped fetal membranes (Fig. 3). The post-partum care was provided with antibiotics, herbal uterine cleanser, anti-inflammatory, and antihistamine for 5 days, the mare had an uneventful recovery.

**Fig. 1:** Fetotomy technique in process


**Fig. 2:** Fetotomy of knee joint (1) and decollation (2)

**Fig. 3:** Extracted fetus along with fetal membranes

When the second stage of parturition in a mare lasts longer than 20 minutes without fetal movements, dystocia is diagnosed. Deviation of head and neck is the major cause of dystocia resulting in worse conditions. The equine dystocia can be resolved through different techniques which include assisted vaginal delivery (rotation, repulsion, and traction) in recumbent or standing position of the mare and controlled vaginal delivery via fetotomy (Frazer, 2007). Manipulation of fetus through birth canal and final decision depends on foal status, economic value of mare and foal, duration and severity of dystocia and clinician expertise. In mares, the length of birth canal is longer as compared to cows and also the fetal membranes detach very quickly hence making fetotomy more difficult in mares therefore, fetotomy should be performed considering all the challenges involved in the process. Partial fetotomy shortens the duration of intervention for delivery of a non-viable fetus (Nimmo *et al*., 2007). Fetotomy is better alternative than cesarean section for handling dystocia in a mare.

## CONCLUSIONS

It is concluded that by partial fetotomy is better practical option to resolve dystocia in mare due to postural deviation. Furthermore, this technique is comparatively economical to handle dystocia cases as compared to caesarean section and better recovery can be achieved by proper postoperative care.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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