



## Management of Fetal Dystocia by Partial Fetotomy in Mare

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### ABSTRACT

Delivery of a dead fetus in a mare suffering from dystocia due to right lateral head and neck flexion using partial fetotomy procedure is reported.

**Key words:** Dystocia, Partial Fetotomy, Malposture and Mare

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### INTRODUCTION

Dystocia is the result of by maternal or foetal factors, foetal causes being the most common most prevalent in all animals. Incidence of dystocia is 4% in Thoroughbred mares (Frazer, 2001). The survival of the mare and foal, as well as the subsequent fertility of the mare, is dependent on effective management (Pynn, 2014). Different procedures are used to resolve dystocia in various farm animals and mares, such as rotation, repulsion, traction, caesarean section, and foal fetotomy (Frazer, 2001). Two techniques of fetotomy in practice are subcutaneous and percutaneous, partial fetotomy in mare resolves 80% of dystocia cases (Vandeplassche, 1987). The current report describes a rare case of an abnormal posture with right lateral head and neck flexion resulting in dystocia, which was successfully

resolved in a mare using a partial fetotomy (subcutaneous fetotomy), repulsion and traction technique.

### CASE HISTORY AND OBSERVATIONS

A four-year old, Marwari mare, weighing 500-550 kg at full term pregnancy of second parity was presented to the Post Graduate Institute of Veterinary and Animal Sciences, TVCC, Akola with the history of continuously straining, both the forelimbs were extended through the vulva. The first water bag (chorio-allantoic sac) was ruptured 12 hours before the presentation of case. General clinical examination revealed 38.6<sup>o</sup> C of body temperature 42-44 of heart beats and 22-26/min of respiratory rate. The animal was in

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standing position. A vaginal examination was carried out using lubricated plastic sleeves to evaluate the foal's presentation, position, and posture. Per vaginal examination revealed dead foetus without revealing any reflex, having anterior longitudinal presentation, dorsosacral position but an abnormal posture right lateral head and neck flexion. The birth canal was moist with dilated cervix. The examiner attempted to correct the posture manually and but the procedure could not help thus it was decided to treat dystocia by partial fetotomy.

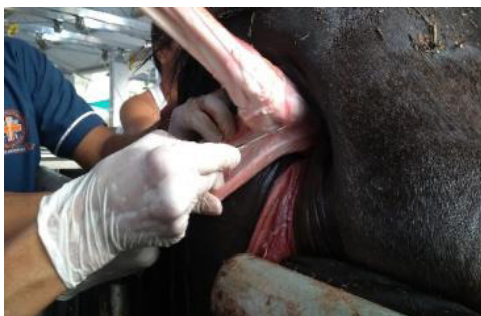


Fig. 1. Subcutaneous fetotomy of dead foetus



Fig. 2. Dead foetus

## TREATMENT AND DISCUSSION

To reduce straining, animal was administered epidural anaesthesia 2% lignocaine (LOX<sup>®</sup>, Neon Labs, India) 1ml per 100 kg body weight. As there was inappetence the animal was stabilized by fluid therapy ((Dextrose 5%, Ringer lactate), supportive therapy analgesics (inj. Flunixin meglumine 1.1 mg/kg), multivitamin. Carboxy methyl cellulose (CMC) solution was prepared and copious lubrication was done. Traction was applied on both the forelimb which were extending and then proceeded for the subcutaneous fetotomy. The fore limb was snared around the pastern instead of around the fetlock. Continuous traction was applied on the snare by one assistant. The skin was dissected (separation of skin from the muscles) with the help of fingers around the leg and extended it to the scapular region Next step was to disarticulate the fetlock

joint without severing the skin. Then a snare attached to the distal end of the metacarpal bone used for traction. Due to this constantly increasing force traction, decorticated limb (skinless limb) was detached from the thorax and removes it. The same procedure was repeated for other forelimb. The cotton rope tied at the end of the subcutaneous skin of the fore limb made it easy. As a result of decortication the size of the fetus was reduced and it became easy to manipulate the foetus abnormal posture correction of right lateral head and neck flexion with the help of adequate lubrication, repulsion and traction. After correction of the abnormal posture the head and the subcutaneous skin both entered the vaginal passage now the traction was applied to both head as well as to the subcutaneous skin. The dead foetus was successfully removed. To avoid further complications mare was indicated with Inj. Dextrose 5% , Inj. Ringers lactate-I/V, Inj. X- CefTazo @ 1.25 gram -I/V , Inj. Flunixin meglumine@1.1 mg/kg body wt (6 ml)-I/M, Inj. CPM @ 0.5 mg/kg b.wt Oxytocin 10 -15 IU – I/M. Mare was recovered uneventfully around 5<sup>th</sup> day of post-operative treatment.

Different techniques for resolving dystocia in mare for assisted vaginal delivery (rotation, repulsion, and traction) and controlled vaginal delivery (caesarean section and fetotomy) have been used so far. Decision for manipulation is influenced by foal status, mare and foal economic value, duration and severity of dystocia, and clinician expertise. The viability of the foal is the most important factor in deciding whether to choose the obstetrical procedure. In case of live foal caesarean section is followed but in case of dead foetus fetotomy procedure in followed by skilled professional as dystocia in mare is always challenging condition (Higgins and Wright, 1999). Previous studies have shown that 95.8% of mares survived dystocia after fetotomy (Carluccio *et al.*, 2007) and the partial fetotomy technique resolves 80% of dystocia cases in mares (Vandeplassche, 1987). Fetotomy is difficult task in mares than in cows because the birth cavity is longer and the placental membranes separate faster (Frazer, 2001). In the present report, dystocia was resolved by applying partial fetotomy technique with utmost care to save the dam and the procedure helped by minimal stress on dam and saved time to deliver the dead foal.

## CONCLUSIONS

Partial fetotomy (subcutaneous fetotomy) followed by repulsion is the safest and most practical way to resolve dystocia when fetus is dead. Furthermore, this technique is less expensive, imposes less stress on dam, and handles emergency cases than caesarean section and better

recovery can be achieved after proper postoperative care in such situations.

## CONFLICT OF INTREST

The authors declare no conflict of interest.

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