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Use of Fetotomy Technique to Resolve Dystocia due to Wry Neck Ankylosed Fetus in a Mare

Navdeep Singh[1*], Sarvpreet SinghGhuman[2], Navgeet Singh[3], Navjot Singh[3] and Randhir Singh[3]

[1]Veterinary Gynaecologist, Directorate of Livestock Farm, [2]Department of Teaching Veterinary Clinical Complex, [3]Department of Veterinary Gynaecology and Obstetrics, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana - 141 004, India

**Corresponding author*

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A B S T R A C T

The current communication reports a case of dystocia due to wry neck and ankylosed limbs in a mare. The dead fetus was delivered successfully by giving a single cut on the neck using the fetotomy technique.

Introduction

Period of foaling is considered as a critical event for equine breeders. Any abnormality during foaling is one of the most challenging conditions faced by equine practitioners. The incidence of dystocia is reported to be 4% in thoroughbred mares and malposture of long fetal extremities, head, and neck are the major cause of dystocia in mare (Thangamani *et al.*, 2018). Furthermore, the time taken during obstetrical maneuvering is very crucial for the survivability of fetus and mare as well as the subsequent fertility of the mare (Frazer, 2007). One or two well-placed fetotomy cuts can dramatically shorten the intervention time (Nimmo *et al.*, 2007). The present report describes a rare case of dystocia in a mare due to wry neck ankylosed fetus and its successful management through partial fetotomy operation.

Case history and observations

A six years old full-term pregnant mare in her second parity was presented to the University Veterinary Hospital with the history of severe straining for the last 6-8 hours. Visibly, both ankylosed forelimbs with knee flexion were hanging out from the vulva (Fig. 1). General

clinical examination revealed that the mare was alert with 102.4ºF body temperature. Mare's tail was wrapped and the perineal region was thoroughly cleansed with an antiseptic solution.

Following epidural anesthesia with 5 ml of 2% Lignocaine hydrochloride solution at first inter-coccygeal space, a thorough vaginal examination was performed which revealed a fully dilated cervix with moist birth canal. The fetus, without any reflex, was in anterior longitudinal presentation with severe lateral deviation of the head. The neck seemed to be stiff (wry neck). Taking all these findings into consideration, it was decided to relieve dystocia through fetotomy.

Treatment

Following epidural anesthesia and ample lubrication with 1% solution of sodium salt of carboxymethyl cellulose gel, partially loaded fetotome was introduced in the uterus and wire was placed around neck with the help of calving rope carrier. Head of the fetotome was placed at the base of the neck between both forelimbs (Fig. 2). After amputating the fetal head at the level of the neck, it was removed by applying traction. The head amputation proved miraculous which resulted in the delivery of rest of the fetus by applying traction on forelimbs after lubrication. The mare was discharged with the routine prescription of antibiotics and supportive therapy and referred to the general veterinarian for medical follow-up.

Fig.1 Mare at case presentation; both ankylosed forelimbs hanging out from vulva

Figure.2 Foal with wry neck and ankylosed limbs; placement of fetotome

The incidence of dystocia in mare has been much less documented than bovines (Frazer, 2007). Fetal monsters are rare in horses. However, hydrocephalus (Dugdale, 2007), Schistosomar eflexus, ankylosis of one or more limbs and wry neck are known to occur (Ball 2005). Maldisposed dead fetuses can be safely resolved for vaginal delivery through fetotomy performed by skilled persons, otherwise, it is potentially hazardous for the mare (Higgins and Wright, 1999). One to two well-placed fetotomy cuts can dramatically shorten the intervention time and permit a traumatic delivery of a nonviable fetus (Nimmo *et al.,* 2007). The value of mare is an important factor to be considered. In one study, one or two cuts were sufficient to correct 57% of the cases, and another 21% required a third cut (Frazer, 1997). The survival rate of mares subsequent to fetotomy was 95.8% in one study (Carluccio *et al.*, 2007) and 100 percent in another (Volkmann, 2009). The short term and long term fertility of mares appears to be good with 80 to 83% mares conceiving subsequently (Carluccio *et al.,* 2007; Nimmo *et al.,* 2007).

Summary

In the present case, dystocia in a mare due to fetal abnormalities viz. ankylosis of forelimbs and wry neck was observed. A single cut on the neck to amputate and remove head proved helpful in the delivery of malpostured fetus. It is thus concluded that fetotomyis a potential tool to relieve dystocia due to wry neck and ankylosed fetal limbs in mares. Furthermore, fetotomy is a relatively non-invasive and economical way to handle these obstetrical emergencies when compared to the cesarean section. Also, recovery is uneventful without much intensive care and complications which may otherwise be encountered after the cesarean section.

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