CASE REPORT

Management of Dystocia in Dromedary Camel through Fetotomy

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Dystocia, or difficult birth, is a significant reproductive concern in animals, often leading to severe complications for both the dam and the fetus. Although camels are known for their relatively low incidence of dystocia compared to other livestock; dystocia in camels, particularly dromedaries, has been sporadically reported, and are attributed to both fetal and maternal causes (Gera and Datt, 1981; Purohit *et al*., 2000). Dystocia in camelids is uncommon, but the long neck and fetal limbs make them more prone to flexion deformities, which are frequent causes of dystocia (Purohit, 2012). Tibary *et al*. (2008) projected that around 5% of all camelid deliveries will necessitate some form of assistance, with nearly 2% requiring specialized obstetrical intervention. Similarly, Aboul-Fadle *et al*. (1990) reported a 9% incidence of dystocia in camels. Dystocia should be suspected in camels if the first stage of labour extends beyond 6 h, accompanied by rising pain or discomfort, or if the second stage fails to progress as expected (Noakes *et al*., 2019). Fetal causes, such as limb flexion and lateral deviation of the head and neck in anterior presentation, accounted for 54.54% and 36.36% of all fetal-related dystocia cases, respectively (Purohit *et al*., 2011). Epidural anaesthesia, typically with 5-10 mL of 2% lignocaine, is recommended for pain management. If the cervix is only partially dilated, a Cesarean section should be considered as an alternative (Thangamani *et al*., 2018). Additionally, sufficient space in the birth canal is necessary for the fetotomy, and proper restraint of the animal is essential for a safe and effective procedure (Schultz *et al*., 2008). This report documents the successful management of dystocia in a dromedary camel through fetotomy.

Case History and Observations

A 9-year-old female dromedary camel (single-humped) in its second parity was presented to the Veterinary Clinical Complex of the College in Himmatnagar (Gujarat, India) with a history of prolonged labour persisting over 24 h. The camel was restrained in sternal recumbency, with ropes securing all four limbs and the head to prevent biting. Epidural anaesthesia was given using 3.5 mL of 2% Lignocaine hydrochloride. The birth canal was well-lubricated with liquid paraffin to minimize injury and facilitate fetal manipulation. Gynaeco-clinical examination revealed an anterior longitudinal presentation with a dorso-sacral position and downward deviation of fetal head (foot-nape posture). Due to the limited space in the birth canal, it was decided to perform partial fetotomy with the consent of owner, and relieve the dysticia.

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Treatment and Discussion

Fetotomy was performed using Thygeson's fetotome under epidural anaesthesia with 2% Lignocaine hydrochloride (Fig. 1). Before fetotomy, repulsion of the fetus was done to create space for the further procedure. The area of fetal body was identified and fetotomy cuts were performed for successful fetal removal through vaginal passage. A partial fetotomy was performed cutting the fetal neck to facilitate extraction of rest of the fetus using traction ropes (Fig. 2).

Post-operative care included antibiotics (Oxytetracycline at 10 mg/kg b.wt.) and anti-inflammatory medication (Meloxicam at 0.2 mg/kg b.wt , i/m) for 5 days. An intrauterine treatment with Furea bolus was given to prevent uterine infection, alongside herbal uterine ecbolics.

In the present case, animal was restrained in sternal recumbency using sedative. The aim of fetotomy was to remove a dead or non-viable fetus from uterus of camel having complication due to impaction of deviated head inside the uterus and improper vaginal dilation. The incidence of dystocia in camels is low; however, when it does occur, management can be challenging due to their exceptionally long neck and limbs.

Fetotomy is indicated in cases of dead fetuses with non-correctable malpresentations. The success of the procedure

Fig. 1: Fetotomy with Thygeson's fetotome

Fig. 2: Dead fetus delivered after fetotomy

largely depends on the veterinarian's expertise and available facilities. When the cervix is partially dilated and significant deviations in fetal position exist, fetotomy combined with coordinated traction can be effective for removal. Managing dystocia in camels can be quite challenging due to the length of the fetus' limbs and neck, combined with the relatively narrow birth canal, particularly in young dromedaries, as well as in llamas and alpacas (Tibary and Anouassi, 1997). Subcutaneous fetotomy can be performed in camels with dead fetus (Kumar *et al.*, 2012). This procedure helps to prevent infection, reduce the risk of uterine damage and facilitate the recovery of dam, allowing future breeding opportunities. It involves making incision to dismembrane the fetus for easier extraction while minimizing harm to surrounding tissue.

Fetotomy in camels presents unique challenges, particularly with cranial neck deviations that can be difficult to correct manually (Purohit, 2012). In this case, the severe downward deviated head & neck and delayed referral led to a lack of space in birth canal. Timely intervention and careful execution of fetotomy are essential in such cases. Therefore, it is concluded that percutaneous fetotomy can be successfully performed in camels carrying a dead fetus as an effective method to relieve dystocia and facilitate fetal removal.

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