Successful management of dystocia due to lateral deviation of head and neck along with fetal emphysema in a jenny: A case report

Mohd Mujaheed Pasha, Bijurkar RG, Venkanagouda Doddagoudar, Malashi G and Poornima

Abstract
This report describes dystocia in a multiparous, 6-year-old jenny presented to the hospital with a history of completed gestation period, non-progressive straining since 24 hours and treated by field veterinarian symptomatically. On gynaecological examination, edema of vulva and both the fore limbs were outside the vulva with anterior longitudinal presentation, dorsosacral position and right lateral deviation of head and neck with fetal emphysema. Based on the observations, the case was diagnosed as dystocia due to right lateral deviation of head and neck. Per-vaginal delivery was attempted under epidural anesthesia using 2% lignocaine along with sufficient lubrication using CMC gel, following obstetrical correction, a dead female fetus was delivered with gentle traction. Postoperative management was carried out with antibiotics, fluids and ecolics for five days and the jenny recovered uneventfully.

Keywords: Dystocia, head and neck, jenny, lateral deviation

Introduction
Total Population of Horses, Ponies, Mules & Donkeys in the country is 0.55 million whereas population of donkeys alone is 0.12 million as per livestock census 2019. They support people’s livelihoods in a broad range of sectors that includes agriculture, construction, tourism, mining and public transport. It is estimated that working equine animals help nearly 600 million people globally, often in poor and marginalized communities.

Dystocia, defined as any birth that reduces neonatal viability, causes maternal injury or requires assistance (Purohit and Honnappagol, 2009) [6]. The process of foaling in equines is a rapid (30 minutes) and violent process with low incidence of dystocia (Bhoi et al., 2010) [2]. Nevertheless, among the dystocia cases reported in equines, fetal dystocia with postural disposition being frequent due to long extremities in foals (Arthur et al., 2001) [1].

Case History and Observations
A six-year-old multiparous, jenny presented to Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Bidar with a history of completed gestation period, non-progressive straining since past 24 hours. The animal was dull and depressed with frequent non-progressive straining to deliver the fetus. On gynaecological examination, edema of vulva was evident with both the fore limbs outside of passage and fetus in anterior-longitudinal presentation, dorsosacral position with right lateral deviation of head and neck. Further, concurrently the fetus was emphysematous. Hence, diagnosed as dystocia due to right lateral deviation of head and neck with fetal emphysema.

Treatment and Discussion
The jenny was restrained on its right lateral recumbency and epidural anesthesia was achieved with 6 ml of 2% Lignocaine Hydrochloride to minimize the straining. The perineum cleaned and birth canal was lubricated with ample amount of 2% carboxyl methyl cellulose gel and an attempt was made to correct the fetal postural defect. Repulsion of one of the fore limbs after shaving was done to create space to correct postural defect. A lubricated hand was introduced into the uterus, with the help of index finger orbit was secured and judicious amount of traction was given to bring the head near to pelvis, followed by grasping of lower mandible in the palm making sure to cover the incisors and traction was applied to pull into the passage and later completely out of the vulval opening.
Then, the forelimb which was pushed back into the uterus was corrected with the help of snare and a dead female fetus was delivered with gentle traction. After delivery, Oxytocin 50 IU IM was administered to evacuate the contents of the uterus and followed with fluid therapy (Intalyte 3000 ml IV), antibiotic (Intacef tazo 3375mg IV) and anti-inflammatory (Flunixin meglumine, 6 ml IV). A dose of tetanus toxoid was also given on the day of delivery to minimize the chance of tetanus. The jenny was discharged with advice of follow up treatment for 5 days, the jenny recovered uneventfully.

Frazer et al. (1997) \(^5\) reported that about 68% of dystocia in equine were in dorsosacral position and among these, 38.36% were lateral deviation of head and 16.44% were of ventral deviation of head and 57.79% were due to malposture associated with limbs. The deviation of the head and neck is the most common cause of severe dystocia for fetus presented in anterior longitudinal presentation (Dadarwal et al., 2008) \(^4\). The long extremities of foal tend to predispose jenny to dystocia (Chauhan et al., 2013) \(^3\) which leads to failure of per-vaginal delivery of the foal (Arthur et al., 2001) \(^1\). Similar per-vaginal deliveries in jenny due to deviation of head and neck along with both forelimbs flexed from carpal joint (Sacchan et al., 2015) \(^8\) and lateral deviation of head and flexed left shoulder beneath the fetal body (Solanki et al., 2017) \(^9\) were previously reported.

The abnormal fetal position usually transpires during late part of first stage or just prior to parturition in mare. The fetus is rotated from its dorso-pubic or dorso-lateral position into dorso-sacral position and passes through the cervix into birth canal with legs and head extended which lasts about 1-4 hours (Roberts, 1971) \(^7\). In the present case, laterally deviated head and neck may perhaps be due to failure of head to extend, further complicated by strong expulsive contractions or due to forced traction of fore limbs leading severe neck deviation. The death of fetus in the present case was probably the result of separation of placenta and protracted second stage of parturition. To conclude, dystocia due head and neck deviations in jenny can be successfully delivered per-vaginally using correct obstetrical manipulation techniques.
Fig 6: After Treatment

References