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Retained Fetal Membranes in a Marwadi Mare: A Case Report
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Placenta has been defined as “An apposition between maternal and fetal tissue to establish physiological exchange” (Mossman, 1937). The review of the literature indicates that membranes should be considered as retained if they are not delivered within three hours of parturition, although there is no particular scientific basis to this time frame in mares. The etiology of this problem varies from abortion, dystocia, prolonged gestation, cesarean section, fetotomy, hydropsy, induced delivery to many other plausible factors (Provencher et al., 1988; Frazer, 2003; Parmar et al., 2018). A retained fetal membrane (RFM) is the most common postpartum problem in draft mares (Cuervo-Arango and Newcombe, 2009; Dinuka et al., 2018); however, the reported incidence of RFM in Marwadi mares is rare, and recently it was published in a Kathiawadi mare (Patel et al., 2018). It is well documented that RFM is a medical emergency as far as risks of metritis, laminitis, fertility are concerned. In extreme cases, it also leads to death. Therefore, different treatment regimens such as oxytocin, antimicrobial therapy, uterine lavage, Burne’s technique, etc. were developed by practitioners and practiced globally to solve the issue (Provencher et al., 1988; Coutinho da Silva, 2016).

Case history and observations
A 9 years old mare with RFM was presented to the Ambulatory Clinic of the Postgraduate Institute of Veterinary Education and Research, Kamdhenu University, at Sanoda, Ta. Dehgam, Gandhinagar, Gujarat. Anamnesis revealed that mare foaled 5–7 hours before being presented for the treatment. The body temperature was 100.2°F with rapid respirations, mild colicky signs, congested conjunctival mucous membrane, and abnormal hind-limb gait. The RFM was hanging outside the birth canal up to the hock joint. The placenta was red to brownish in color and edematous.

Treatment and discussion
The perineal region of the mare was cleaned with lukewarm water and 2% chlorhexidine solution. The tail was wrapped with protected sleeve (Fig. 1) and secured for ease of handling. Mare was subjected to thorough physical and vaginal examinations. Before the mare was presented at ambulatory clinics, the local veterinarian infused her with...
oxytocin 20–40 IU in 1 liter normal saline. There was no effect of this therapy. Hence the mare was examined per vaginally for manual retraction of RFM. Gently RFM was removed by inserting the left hand per vaginum and pulling gently with the right hand (Provencher et al., 1988; Cuervo-Arango and Newcombe, 2009; Coutinho da Silva, 2016), removing RFM with due care (Fig. 2). Following this, the uterine flushing and siphoning with 10 liters of warm sterile saline was performed. This treatment was used in combination with exogenous (i/m) oxytocin (10–20 IU) administration. Many medications were developed and advised to prevent manual removal of RFM (Dinuka et al., 2018); however, pertinent to the case and also to prevent toxemia, it was decided to remove RFM manually. Mare was also treated with Enrofloxacin 10% i/v @ 7.5 mg/kg (Bayrocin 10% Bayer India Pvt. Ltd.) were administered i/m. The reproductive status of the mare was reported to be normal on one month follow up.

This communication reports a case of RFM in a Marwari mare, which was managed successfully by manual removal and supportive therapy.

**REFERENCES**


