CASE REPORT

Retained Fetal Membranes in a Marwadi Mare: A Case Report

FM Kapadiya¹, VS Suthar²*, SC Patel³

Keywords: Manual removal, Marwadi Mare, Retained fetal membranes. *Ind J of Vet Sci and Biotech* (2019): 10.21887/ijvsbt.15.2.25

Dlacenta 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 ¹Polytechnic in Animal Husbandry, Kamdhenu University, Rajpur (Nava), Himmatnagar, Gujarat, India

²Ambulatory Clinics, PG Institute of Veterinary Education and Research, Kamdhenu University, Gandhinagar-382010, Gujarat, India

³Veterinary officer, Dept. of Animal Husbandry, Government of Gujarat, Gandhinagar-382010, India

Corresponding Author: V.S. Suthar, Ambulatory Clinics, PG Institute of Veterinary Education and Research, Kamdhenu University, Gandhinagar-382010, Gujarat, India, e-mail: vsuthar28@ gmail.com

How to cite this article: Kapadiya, F.M., Suthar, V.S. and Patel, S.C. (2019). Retained Fetal Membranes in a Marwadi Mare: A Case Report. Ind J Vet Sci and Biotech, 15(2): 85-86.

Source of support: Nil

Conflict of interest: None

Submitted: 20/10/2019 Accepted: 26/10/2019 Published: 25/11/2019



Fig 1: Retained Fetal Membrane hanging outside the vagina

[©] The Author(s). 2019 Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons. org/licenses/by/4.0/), which permits unrestricted use, distribution, and non-commercial reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The Creative Commons Public Domain Dedication waiver (http://creativecommons.org/publicdomain/zero/1.0/) applies to the data made available in this article, unless otherwise stated.



Fig 2: Placenta after removal

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.). Tetanus toxoid (5 ml) and Flunixin meglumine 1.1 mg/kg (Megludyne® Virbac 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

- Coutinho da Silva, M.A. (2016). Advances in diagnostic and therapeutic techniques in equine reproduction. *Vet. Clin. North America: Equine Practice*, 32(3): 10-21, DOI:10.1016/S0749-0739(16)30047-30055
- Cuervo-Arango, J., and Newcombe, J.R. (2009). The effect of manual removal of placenta immediately after foaling on subsequent fertility parameters in the mare. *J. Equine Vet. Sci.*, 29(11): 771-774.
- Dinuka, N.W., Christina, D.M., Jacqueline, A.M., David, W.H., and Natali, K. (2018). Treatment of retained fetal membranes in the mare - A practitioner survey. *Frontiers in Vet. Sci.*; 15: 1-9.
- Frazer, G S. (2003). Postpartum complications in the mare. Part 2: fetal membrane retention and conditions of the gastrointestinal tract, bladder and vagina. *Equine Vet. Educ.*, 15: 91-100, DOI: 10.1111/j.2042-3292.2003. tb00223.x
- Mossman, H.W. (1937). Comparative morphogenesis of the fetal membranes and accessory uterine structures. *Contrib. Embryol. Carnegie Inst.*, 26: 129-246.
- Parmar, S.C., Patel, J.A., Chaudhari, D.V., Hadiya, K.K. and Dhami, A.J. (2018). Late-term abortion and retention of placenta in donkey (*Equus acinus*): A report of two cases. *Indian J. Vet. Sci.* & *Biotech*, 14(2): 66-68.
- Patel, M., Rathod, B., Nakhashi, H., and Suthar, B. (2018). Retention of fetal membranes in aborted Kathiawari mare: a case report. *Concepts of Dairy & Vet. Sci.*, 1(4): 118-119.
- Provencher, R., Threlfall, W.R., Murdick, P.W., and Wearly, W.K. (1988). Retained fetal membranes in the mare: A retrospective study. *The Canadian Vet. J.*, 29(11): 903-910.

