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Rupture of prolapsed uterus and its successful management in a Holstein Friesian cow

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Abstract

A Holstein Friesian cow at 4th parity incurred a uterine tear over its prolapsed uterine mass through stampede of another cow's hoof with severe bleeding. A meticulous obstetrical assistance preserves dam fertility and life. Present case reports on successful reduction, reposition and retention of torn prolapsed uterine mass through judicious application of obstetrical therapy and technical manoeuvre.

Keywords: Hoof stampede, Holstein Friesian, prolapsed uterus, uterine tear

Introduction

Total uterine prolapse in cows is most commonly encountered immediately after or within several hours of parturition through open cervix [3]. Rupture of uterus occasionally observed in late pregnancy or during parturition which is spontaneous but faulty obstetrical procedure during handling of dystocia and prolapse is a more frequent cause [2]. The presence of a part of the fetal membrane in the genital passage induces strong tenesmus and prolapse. Various predisposing factors have been suggested for uterine prolapse in the cow, e.g. hypocalcaemia, prolonged dystocia, fetal traction, fetal oversize, retained fetal membranes, chronic disease and paresis. Prolapse of the uterus at post parturient period through the genital passage and its expulsion outside the body is a frequent sequel to protracted dystocia. Uterine prolapse has been recorded in all species of animal, although most commonly seen in pluriparous dairy cows occurring immediately after parturition and occasionally after several hours. In the present communication, a complicated case of large uterine tear on a prolapsed mass inflicted by stampede of another cow and its successful obstetrical management is reported.

Case history and observations

A Holstein Friesian cow at fourth parity with the history of total uterine prolapse and severe bleeding from the uterus was presented to the Teaching Veterinary Clinical Complex of College of Veterinary Science and Animal Husbandry, Bhubaneswar. The animal was in lateral recumbency and severe straining was observed. Physical examination revealed the temperature and the pulse rate were normal while the respiration was shallow. The Conjunctival mucus membrane was slightly congested showing the early signs of shock. Further examination of uterus revealed a large uterine tear with irregular outline which was due to stampede of the nearby cow (Fig. 1).



Fig 1: Tear on the prolapsed uterus (Yellow arrow)

Treatment and Discussions

The cow was first stabilised by giving fluid therapy (3 bottles of each of Ringers lactate and Dextrose Normal Saline) and corticosteroid (10 ml. of Dexona). Then the bedding point in uterus was checked by artery forceps. Under low caudal epidural anaesthesia (5ml of 2% lignocaine hydrochloride) the obstetrical procedure was carried out. The prolapsed mass was cleaned thoroughly with mild antiseptic solution to remove the dust and dirt particle that adhered to the uterus. The blood vessels were ligated by transfixation ligation. Then the tear on uterus was sutured completely by continuous sutures using chromic catgut No: 2 in inversion pattern. After suturing, the prolapsed mass was reduced by applying ice cold water and saturated salt solution. Finally, the uterus was lubricated and repositioned properly by following standard procedure. A modified Buhner's vulval suture was applied for retention. Then the cow was treated with a five day course of antibiotics, i.e. Intacef tazo (I/M) @ 3.375gm, NSAID, i.e. Melonex @ 15ml. (I/M) for three days, Calcium borogluconate (I/V) 450ml and 30 I.U of Oxytocin (I/M). Abdominal straining gradually declined within two days and animal had uneventful recovery within five days.

In bovine spontaneous uterine rupture is mostly associated with uterine torsion or incomplete cervical dilation, but gross uterine distension like twins in one horn, hydro allantois, excessive large foetal size may be the possible cause [4]. The most likely time of spontaneous rupture is in late gestation or during labour [1]. Sometimes rupture of uterus may occur during faulty manipulation procedure. In the present case the rupture is neither spontaneous nor faulty manipulation but due to managerial deficiency. Hypovolemic shock and even death can occur if the uterine artery is ruptured and haemorrhage is not adequately controlled [5]. Presentation of case during proper time limit duration obscured the vascular hypovolemic shock generated by excessive bleeding.

Conclusion

Present case study briefs on successful management of rupture of prolapsed uterus in the Holstein Friesian cow.

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