

SUCCESSFUL MANAGEMENT OF MACERATED FOETUS IN A JAFFARABADI BUFFALO- A CASE REPORT

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ABSTRACT

A seven year old Jaffarabadi buffalo having completed gestation period of 340 days with no any signs of parturition, absence of relaxation of sacro-sciatic ligament, failure of mammary gland development, foul smelling discharge from the vagina was presented at VCC of Veterinary College, Junagadh. The animal was active, alert and all the clinical parameters were normal at the time of examination. Rectal examination revealed a contracted uterus lying on the pelvic brim, a thickened uterine wall and a presence of bony prominences on the hard fetal mass was felt. The placentomes were not palpable and fremitus was absent. Vaginal examination revealed a hard and one finger dilated external os of cervix. Based on gynaeco-clinical examination the case was diagnosed as fetal maceration and was attempted to treat with prostaglandin F₂ alpha, estradiol benzoate and Valethamate bromide for induction of parturition, but no any further progress in cervical dilatation was noticed. Therefore, the macerated bony parts of fetus were removed successful by performing a laparo-hysterotomy through caudal left flank approach under local infiltration anaesthesia (2% lignocaine hydrochloride). The animal showed uneventful recovery after post-surgical follow up.

Keywords: Maceration, Foetus, Caesarian section and Jaffarabadi buffalo.

INTRODUCTION

Fetal maceration is common sequelae of mummification and generally occurs in the event of death of fetus after formation of the fetal bones, regression of corpus luteum and failure of abortion (Arthur *et al.*, 1989). Maceration of the fetus has been described in cattle (Drost, 2007), sheep (Ate *et al.*, 2011) and mare (Burns and Card, 2000) but most commonly in cattle and buffaloes (Purohit and Gaur, 2011). Incomplete abortion after the third month of gestation is the main reason for a retained fetal bony mass in the uterus of cows and buffaloes (Sood *et al.*, 2009). Following death of fetus and cervical dilatation, bacteria enters into the uterus through the dilated cervix, and by a combination of putrefaction and autolysis, the soft tissues are digested, leaving a mass of fetal bones within the uterus (Drost, 2007). In such cases, endometritis develops and leads to infertility.

HISTORY AND CLINICAL FINDINGS

A seven year old Jaffarabadi buffalo naturally served, completed gestation period of 340 days with no any signs of parturition, absence of relaxation of sacro-sciatic ligament, failure of mammary gland development, foul smelling discharge from the vagina, decrease appetite, treated for inducing parturition by the local veterinarian without result, was presented at Veterinary Clinical Complex of Veterinary College, Junagadh, Gujarat. The animal was active, alert and the clinical parameters like rectal temperature 102.2°F, pulse rate 58/minute, respiration rate 29/minute were recorded at the time of examination. Rectal examination revealed a

contracted uterus lying on the pelvic brim, a thickened uterine wall and a presence of bony prominences on the hard fetal mass was felt. The placentomes were not palpable and fremitus was absent. Vaginal examination revealed a hard and one finger dilated external os of cervix. Based on gynaeco-clinical examination the case was diagnosed as fetal maceration.

TREATMENT AND DISCUSSION

A presented Jaffarabadi buffalo were treated for induction of parturition with Oestradiol benzoate (Inj. Preg Heat, Virbac, 2 mg, IM), Prostaglandin (Inj. Pragma, Intas Pharmaceuticals Ltd., 500 µg, IM), Valethamate bromide (Inj. Epidosin, TTK health care, 80 mg, IM) and Calcium boro-gluconate (Inj. Mifex, Novartis, 450 ml IV). There was no any further dilatation in cervix up to 72 hours of first dose of treatment so again, the same treatment was repeated after 72 hours of first dose of treatment but, no response was observed in cervical dilatation after 48 to 72 hours of second dose of treatment. Hence it was decided to perform caesarean section through caudal left flank approach under local infiltration anesthesia (2 % lignocaine hydrochloride). The macerated bony fragments of foetus were removed which consist of bones of forelimb, hind limb, axial skeleton, skull, ribs and hoof (Figure 1). The buffalo showed uneventful recovery after post-surgical follow up with Oxytetracycline hydrochloride (Inj. Oxytetracycline hydrochloride, Zydus Animal Health, 10 mg/kg body weight, IV), Meloxicam (Inj. Melonex, Intas Pharmaceuticals Ltd., 0.5 mg/kg, IM), Chlorpheniramine maleate (Inj. Anistamin, Intas Pharmaceuticals Ltd., 10 ml, IM) and B-complex with Liver extract (Inj. Belamyl, Zydus Animal Health, 10 ml, IM) and Dextrose saline 5% (3 litres/day) was given intravenously for 5 days after

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operation to reduce the risk of toxemia, to minimize stress and energy expenses for five days.

In literature, there are reports for expelling the fetus using several drugs including estrogen, prostaglandins and valethamate bromide (Phogat *et al.*, 1994) and failure of this therapy may be recorded if cervix is hard and indurated (Roberts, 2004). In such cases, a repeated treatment can be attempted if physiological parameters are in normal range (Dutt *et al.*, 2018). In non-responsive cases, surgical removal is considered as the last resort. However, in the present case of maceration, there was cervical non-dilatation even after 48 to 72 hours of second repeated dose of treatment, hence laparohysterotomy through caudal flank, had to be performed as described previously (Purohit and Gaur, 2012). But survivability of animal is severely compromised when laparotomy is used for removal of a macerated fetus, as infection to peritoneum may occur during the operative procedure but in the present case, buffalo was recovered successfully that might be due to taking care of minimum contamination of peritoneum during operative procedure and post-operative care.

The caesarean section through left flank approach seems to be last resorts to deliver the macerated foetus in non-responded cases by hormonal therapy. The optimum care should be taken to avoid peritoneal contamination and post-operative medications in Jaffarabadi buffalo for successful outcome.



Figure: 1 Macerated foetal bones removed from uterus by Caesarean section

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