Fetal Mummification and Its Management in a Jersey-Cross Cow

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Abstract

The present article put on record successful management of fetal mummification in a Jersey crossbred cow. Six years old Jersey crossbred cow inseminated before about five months was presented for pregnancy confirmation. On per rectal examination and ultrasonography, the case was diagnosed as fetal mummification and successfully managed by Prostaglandin F₂α (PGF₂α).

Keywords: Crossbred cow, Fetal Mummification, Prostaglandin F₂α

1. Introduction

Fetal death without luteolysis of the maternal CL results in fetal mummification or maceration (Thomas, 2007). While most often found in multiparous species, it can also occur in monotocous ones when the fetus is retained for a long time (Lefebvre, 2015). The occurrence of the disease in cattle is very low and is usually occurs after the 1st trimester of gestation (Roberts, 1986). Reports are available where it can be managed by either therapeutically (Katiyar et al., 2015) or surgically (Desai et al., 2017). As the condition is rarely reported in crossbred cow, a case of fetal mummification in a crossbred cow successfully managed by Prostaglandin F₂α is placed on record.

2. Case Report

A six year old Jersey crossbred cow was presented at Teaching Veterinary Clinical Complex, College of Veterinary Science, Navsari Agricultural University, Navsari for pregnancy confirmation. The animal was artificially inseminated before about five months. Per-rectal examination revealed the closed cervix and a coconut sized hard bony mass which was adhered to the uterine wall inside the right uterine horn. There was absence of fremitus and fetal fluid. However, the animal was apparently healthy and taking food and water normally. The clinical findings like rectal temperature, pulse rate and respiration rate were in normal range. The case was further confirmed to be a fetal mummification by presence of bony mass without fetal fluid on ultrasonography (Fig 1) and decided to treat medically.

3. Treatment

The cow was treated with single dose of injection PGF₂α at 25mg (Inj. Lutalyse), intramuscularly and advised to keep under observation. Subsequently, a piece of placenta hanging outside through vulva was observed by owner after 48 hours of the treatment (Fig 2). On vaginal examination; the cervix was dilated and a bony mass wrapped in the fetal membranes was palpated. Ultimately, almost a fully grown dead fetus covered with dark brown colored fetal membrane was expelled out per-vaginally by mild traction (Fig 3). Fetal examination revealed completely absorbed placental fluids with firmly adhered placenta to the dehydrated fetus and chocolate-coloured material (Fig 4). The cow was treated with Inj. Oxytetracycline LA (Oxytetracycline - 200 mg/ml) at 15 ml intramuscularly and Inj. Cadistin (Chlorphenamine maleate - 10mg/ml) at 10 ml intramuscularly. Four boluses of Metrozole-U (Nitrofurazone - 60mg, Urea - 6g) were kept inside the uterus. Bol. Involon at 1 bid for three days and Tab. Uterovet at 10 bid, p/o were fed for 5 days.

4. Discussion

Fetal mummification is the term commonly employed to describe fetal death and reabsorption of fetal fluids, persistence of the corpus luteum and the retention of the fetuses within the uterus (Noakes, 1986). In cattle, fetal mummification occurs with an incidence of 0.13-1.8% (Barth, 1986) usually after 1st trimester of pregnancy and thereafter, the dead fetus is retained into the uterus due to presence of functional corpus luteum. Desai et al. (2017) reported the condition during the second trimester. While, Vidya Sagar et al. (2014) and Shivhare et al. (2016) reported extended gestation beyond normal period. Prostaglandin F₂α or an analogue is the therapeutic agent of choice for fetal mummification, with excellent prognosis for return to fertility within 1 to 3 months (Thomas, 2007).

In present case, a hard bony mass with closed cervix, without fremitus and fetal fluid remains in the uterus was observed per rectally. Similar findings on rectal examination were reported by Dabas and –
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Chaudhari (2011) prior to removal of mummified fetus by single injection of PGF$_{2\alpha}$ in a cow. In accordance with present report, Yilmaz et al. (2011) also successfully managed twin mummified foetuses in a Holstein Friesian cow with Prostaglandin F$_{2\alpha}$. However, Bhuyan et al. (2016) reported failure of medicinal treatment to manage mummified fetus even after double injection of PGF$_{2\alpha}$ at 48 hours interval, so alternatively surgical approach was made in order to remove the mummified fetus from the cow. Similarly, Ravi Kumar et al., (2017) performed caesarian section as the medicinal management (intramuscular injections of Epidosin and Oxytocin) was failed to expel the fetus. Although, Arthur et al. (1996) reported that the treatment of mummified fetus with PGF$_{2\alpha}$ created some complexity in cattle viz. maceration of mummified fetus and packed in the birth canal instead of expelled out, no such complication was experienced in the present study and the mummified fetus was easily delivered per vaginally by mild traction after 48 hours of the therapy.

5. Conclusion
Fetal mummification and its successful management by Prostaglandin F$_{2\alpha}$ in a crossbred cow is discussed

References

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