

Haematic foetal mummification in a Sahiwal cow: case report

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Abstract

This article puts on record successful management of fetal mummification in a Sahiwal cow. A 6 year old Sahiwal cow in her 3rd parity was presented to outpatient department of Veterinary Teaching Hospital, College of Veterinary and Animal Sciences, G.B. Pant University of Agriculture and Technology, Pantnagar with a history of extended gestation (10.5 months). On transrectal ultrasonographic examination fetal bones were visualized. Per Rectal examination revealed lack of fluid in the uterus which was contracted around the fetus. The case was diagnosed as fetal mummification. Animal was given 500 µg synthetic PGF_{2α} analogue (Clostenol[®] Intas Pharmaceuticals Ltd, Ahmadabad, India) intramuscularly. On 3rd day post treatment, mummified fetus was present in the vagina which was removed manually. Resumption of cyclicity occurred at 46 days post treatment.

Key words: Haematic, Foetal mummification, Sahiwal cow, PGF_{2α}, Clostenol.

Introduction

In cattle, fetal mummification occurs with an incidence of 0.13–1.8% (Arthur et al., 1996) and *haematic mummification* is the norm. Mummification of bovine foetus can be regarded as a gestational accident, occurring sporadically both in indigenous as well as exotic cattle and their crosses too (Jana and Ghosh, 2014). In this condition the fetal fluids are resorbed but the fetus and membranes are surrounded by a viscous, chocolate coloured material (Arthur et al., 1996). The causes of mummification are poorly described, and it is considered that infectious agents like *Campylobacter fetus*, molds, leptospirosis and BVD-MD virus causing fetal death without abortion may result into mummification in cattle (Drost, 2007). Haematic mummification can occur following fetal death at ages ranging from 3 to 8 months of gestation. Since there is no fetal signal for the onset of parturition the corpus luteum is retained and the ‘pregnancy’ will be maintained for an unpredictable time. The condition is often only diagnosed when the cow is examined because of a *prolonged gestation* period (Arthur et al., 1996). Foetal mummification occurs after the first trimester of gestation (Roberts, 1986). It can go undiagnosed, because the placenta and corpora lutea (CL) are capable of producing sufficient progesterone. Treatment of choice is the induction of abortion by luteolysis using prostaglandins. The fetus is normally expelled in 2–4 days.

Case description

A 6 year old Sahiwal cow in her third parity was presented to outpatient department of Veterinary Teaching Hospital, College of Veterinary and Animal Sciences, G.B. Pant University of Agriculture and Technology, Pantnagar with a history of extended gestation (10.5 months). Feed and water intake was normal. The rectal temperature was 101°f and heart rate was 64 per minute. Ultrasonographic examination revealed absence of fluid in the uterus and presence of bony mass. On per rectal palpation, it was found that uterus was tightly contracted around the foetus. So it was diagnosed as a case of foetal mummification. Pervaginal examination revealed complete closure of cervix. The cow was administered with 500 µg synthetic PGF_{2α} analogue (Clostenol® Intas Pharmaceuticals Ltd, Ahmedabad, India) intramuscularly (Jana and Ghosh, 2014) and 70 mg Chlorpheniramine maleate IM (Anistamin®, Intas Pharmaceuticals Ltd, Ahmadabad, India). As there was no sign of toxemia and pyrexia, antibiotic and antipyretic treatment was not given to the animal. After about 48 hours, two fingers dilatation of cervix was evident but foetal parts were not palpable. After about 72 hours post treatment, small amount of reddish discharge passed from vagina and per vaginal examination revealed complete dilatation of cervix and presence of fetus in the vagina which was removed manually. Resumption of cyclicity occurred in the animal after 46 days post treatment. Animal was inseminated at next estrus and got conceived.



Fig. 1: Mummified fetus

Discussion

Mummification has a low incidence (0.13 to 1.8%) in the cow (Arthur et al., 1996). The main goal, when treating an animal with an abnormal pregnancy related to the foetus is to expel the abnormal foetus, so the cow can become pregnant again within the shortest possible time. Although spontaneous abortion of a mummified foetus can occur (Erb and Morrison, 1957), expulsion of the foetus usually requires veterinary medical intervention (Lefebvre et al., 2009). Treatment may consist of administration of a $\text{PGF}_{2\alpha}$ analogue to induce luteolysis, leading to expulsion of the foetus within two to four days (Wenkoff and Manns, 1977). In the present case, animal was treated with a $\text{PGF}_{2\alpha}$ analogue instead of surgery, because surgical treatment could have led to a long hospitalization period, a failed pregnancy (Lefebvre et al., 2009). In the present case, functional regression and expulsion of mummified foetus was achieved with $\text{PGF}_{2\alpha}$.

The prognosis for fertility after foetal expulsion is good. Cows usually conceive on the first or second oestrous cycle after expulsion (Roberts, 1986)

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