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## Removal of mummified fetus in jersey heifer through caesarean operation

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### Abstract

The case relates to a 3 year old pregnant heifer in which the fetus had died in the uterus and was diagnosed 24 days past the actual date of delivery. The diagnosis was made through rectal palpation, which indicated no sign of any movement of the foetus. Upon diagnosis, the foetus, found to be mummified, was removed through surgical intervention. After proper restraint of the heifer, epidural anaesthesia followed by L Block anaesthesia of the left flank region of the para lumbar fossa was done to carry out the caesarean section. A ventro-lateral oblique incision was made on the abdomen, uterus was located and was carefully cut horizontally to remove the foetus from inside the uterus. The foetus, mummified and covered with dried thick placenta, was vertically cut into two pieces to facilitate proper removal. The uterus was sutured using continuous lambert pattern and the abdominal muscles were patched through continuous interrupted suture using catgut no. 1. Post-surgical treatment was given accordingly.

**Keywords:** Caesarian section, mummified fetus, pregnant heifer

### Introduction

Mummification of fetus in bovine species is relatively rare, with a low incidence rate of 2 percent (Barth, 1986) <sup>[1]</sup> Fetal mummification has also been reported in other species such as sheep, goat, pig, horse and dog, even though its occurrence is more common in bovine species (Lefebvre *et al.*, 2009) <sup>[2]</sup> Dehydration of tissues contributes significantly to the mummification process, in which case bacteria cannot survive and the body fails to decompose. (Janaway *et al.*, 2008) <sup>[4]</sup> Persistent corpus luteum helps to maintain the dead fetus within uterus by secreting progesterone (Roberts, 2012) <sup>[5]</sup>. Fetal mummification is however significantly different from fetal maceration, which is characterized by the fetal putrefaction from the presence of bacteria and oxygen (Lefebvre, 2015) <sup>[3]</sup> The present study highlights the successful removal of mummified fetus through surgical intervention

### Case Report, Clinical Findings and Treatment

A 3 year old pregnant Jersey heifer weighing about 250 kg was reported to have an extended gestation period stretching 24 days from the expected date of parturition. The animal did not show any abnormal signs and most of the physiological parameters such as heart rate, pulse rate, temperature etc fell within the normal range. (Figure 1) However, on rectal palpation, no movement of the fetus could be detected suggesting death of the foetus. Based on the rectal examination, it was decided that the heifer be operated upon for successful removal of the fetus. After proper restraint of the heifer, the skin surface on the left par lumbar fossa was shaved aseptically, washed with soap and sterilized with antiseptic solution. 2% tincture iodine solution was applied around the area and was left for drying before the caesarean section could be performed. The heifer was then subjected to epidural anaesthesia followed by L Block anaesthesia of the left flank region of the para lumbar fossa to carry out the caesarean section. A ventro-lateral oblique incision was made on the abdomen, uterus was located and was carefully cut to remove the fetus from inside the uterus. The fetus, mummified and covered with dried thick placenta, was vertically cut into two pieces to facilitate proper removal. (Figure 2) The uterus was sterilized by cleaning with 100 ml Normal Saline solution and 50 ml Metrogyl solution prior to suturing. The uterus was sutured using continuous Lambert pattern and Catgut no. 1 was used for the purpose of suturing. Similarly, the abdominal muscles were sutured using catgut no 1 suture, followed by suturing of the skin layer using nylon thread.

(Figure 3) Post-surgical treatment was rendered to prevent the occurrence of any secondary bacterial infection. Intacef was administered IM at the rate of 10 mg/Kg body weight for a period of 7 days. 500 ml of Ringer's lactate was given IV for two consecutive days. Melonex was given IM for 2 days at 0.2 mg/kg body weight. Tribivet and avil were also given intramuscularly for three days.



Fig 1: Jersey Cow showing no signs of illness



Fig 2: Mummified foetus removed through CS



Fig 3: heifer after successful removal of mummified foetus

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