



Research Article

DELIVERY OF FREE MARTIN (CO-TWIN WITH MALE) FETUS BY CAESAREAN SECTION IN A NON-DESCRIPT COW

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Abstract: The case report dealt with a rare case of free martin co-twin with male fetus delivered by caesarean section in a pluriparous non-descript cow.

Keywords: Male fetus, Caesarean Section, Free martin, Dystocia, Twin Birth, Dizygote

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Introduction

Twinning is associated with hormonal regulation in favor of double ovulations. Free martin is a particular form of intersexuality in cattle but pathology can also be observed in buffalo and small ruminants [1, 2]. In sheep and goats other forms of intersexuality seems to be more frequent than the freemartin syndrome [3] while in cattle free martin is pre-dominant. Twin and triplet births are not common in uniparous species such as cattle and horses [4], multiple births occur more frequently in sheep and goats. In sheep and goat incidence of twinning is very high (60-70%) whereas low in dairy cattle (1.04%) and mare (0.5-1.05%) [5]. Dizygotic are the most common type of twin, may be of the same or different sex and are more than two-thirds of live twin births [6]. Free martin found only when dizygotic twins are present.

Case History and Observation

A pluriparous cow of five-year age in second parity suffering from dystocia due to impaction of twin fetus in birth canal was brought to Veterinary Clinical Complex in morning. Amniotic bag was ruptured in mid night. Owner told that fetus were live but after continuous traction for three to four hours, they died. Cow was exhausted and recumbent. Per-vaginal examination revealed that four limbs were present in the birth canal with two heads in anterior longitudinal presentation. It was suspected to be a case of monstrosities and caesarean section was decided.

Treatment and Discussion

The cow was prepared for aseptic surgery in right lateral recumbency. Under local anesthesia (2% lignocaine hydrochloride) the incision was given parallel and four fingers lateral to milk vein just cranial to udder. Four hind legs were found after incising uterus [Fig. 1]. On examination, it was found both fetuses were separate, traction applied separately on individual fetuses and male and female twins were delivered following caesarean section [Fig. 2]. Placenta removed and uterus was washed with solution of povidone iodine and normal saline. Uterus was sutured in crushing followed by lambert suture pattern. 50 IU oxytocin was given intravenously after diluting in 1000 ml normal saline.

A suitable post operative therapy with antiseptic dressing with betadine solution, intramuscular administration of cefoperazone plus sulbactam 4.5g (Cefzone, GEMTECH Pharmaceuticals), Flunixin meglumine 15 ml (FM-50, MACWELL

Pharmaceuticals), B-Complex 10ml (Tribivet-INTAS Pharmaceuticals) and Metronidazole 1000ml intravenously was prescribed daily for seven days to prevent secondary bacterial infection and other post operative complications.



Fig-1 Showing four hind legs protruding outside the uterine incision



Fig-2 Showing dead male and female fetus delivered by caesarean section
The death of fetuses occurred due to faulty and long duration traction. Fetuses were of different sex, female fetus was free martin. A limited amount of research has been dedicated to examine the incidence of multiple births in bovine.

Some free martin animals were born as singleton due to the death of its co-twin in utero were identified [1]. The rate of free martinism in cattle population is directly associated with the rate of twinning births. Prevalence of the freemartin syndrome in cattle population is directly dependent of the prevalence of twinning within the population (7). Normal per-vaginal delivery of twins is difficult due to impaction of fetus in birth canal thereby resulting in dystocia [6]. The incidence of dystocia due to conjoint twin was higher than that of individual twin [8]. Dystocia in present case was due to wedging of fetuses together in maternal pelvis.

Application of research: Incidence of twin births with free martin in cattle

Research Category: Veterinary Gynaecology

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Study area / Sample Collection: Veterinary Clinical Complex, Hisar, 125004

Breed name: Non – descript cattle

Conflict of Interest: None declared

Ethical approval: Ethical approval taken from College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, 125004, Haryana, India.

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