

Case Study

<https://doi.org/10.20546/ijcmas.2020.907.340>

Surgical Management of Dystocia due to Monocephalus Thoracopagus Tetrabrachius Tetrapus Dicaudatus Monster Foetus by Caesarean Section- A Case Report

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ABSTRACT

Keywords

Calf, Dystocia, Fetal monster, Thoracopagus, Tetrabrachius, Tetrapus, Caesarean section

Article Info

Accepted:
22 June 2020
Available Online:
10 July 2020

A conjoined monster calf was delivered by caesarean section in a crossbred Holstein Friesian heifer. The calf was partially duplicated with single head (Monocephalic), two male fetuses joined at the thoracic region (Thoracopagus) and having well developed eight limbs that is four fore limbs (Tetrabrachius) and four hind limbs (Tetrapus) and both pelvis were separate (Dicaudatus). The occurrence of foetal monstrosities often leads to difficulty in parturition and also failed to be delivered by mutational operations. The present report records a successful management of dystocia due to monocephalic thoracopagus tetrabrachius tetrapus monster calf in a crossbred Holstein Friesian by caesarean section.

Introduction

Dystocia or difficulty in parturition can be due to maternal or fetal origin. Bovine practitioners are often presented with such condition where scientific manipulation is required to correct the presentation to bring about a normal delivery. Caesarean section is considered when the fetus cannot be delivered by fetal mutation and extraction (Schultz *et al.*, 2008). Absolute fetal oversize, malposition, fetal anasarca, schistosoma reflexus, hydrocephalus, conjoined twins,

emphysematous, mummification, and prolonged gestation (Campbell and Fubini, 1990) etc. are the conditions that are of fetal origin that can lead cesarean section.

Monsters are abnormal fetuses that usually have altered appearance (Purohit, 2006), results from developmental disturbances that involves various organs and systems (Vegad, 2007). They are usually associated with either with infectious diseases or congenital defects (Arthur *et al.*, 2001) and may or may not interfere with birth (Sharma *et al.*, 2010;

Gupta *et al.*, 2011). Abnormal duplication of germinal area in fetus will give rise to congenital fetal abnormalities with partial duplication of body structure (Roberts, 2004). Dystocia is a common sequel of monstrosity, so it is important to know various types of monsters which cannot be removed without Caesarean section or fetotomy most of the time (Gupta *et al.*, 2011).

This communication reports a rare case of conjoined monster calf (Monocephalus Thoracopagus Tetrabrachius Tetrapus Dicaudatus) in a cross bred Holstein Friesian heifer which was relieved by caesarean section.

Case history and clinical observations

A three year old crossbred Holstein Friesian heifer was presented to veterinary dispensary cumbummettu in sternal recumbency with history of full term gestation and shows severe straining since last 8 hours, water bag ruptured few hours before but the animal is not able to deliver the calf. Detailed Gynaecological examination revealed that the birth canal was completely impacted with four limbs and head. Per vaginal examination revealed no demarcation of thorax and four limbs could be palpated at untoward places. The condition was tentatively diagnosed as fetal monster.

Treatment

The surgical procedure was done under Xylazine hydrochloride sedation at the rate of 0.1mg per Kilogram bodyweight intramuscularly and regional anaesthesia was accomplished by inverted L block using 2% Lignocaine. The animal was placed in right lateral recumbency and the surgical site was clipped shaved and prepared for aseptic surgery. An oblique incision was made in the left lower flank downward and forward. The incision was deepened by incising through the

muscle layers and peritoneum to reach the abdominal cavity. The uterus was exteriorized and a knick incision was made in the uterus which was extended with scissors. The foetus was tracted out gently after careful manipulation. The uterine incision was closed with catgut (Size 1) in double layer inversion suture pattern, thereafter muscles and skin was apposed in routine manner. Polyglycolic acid 1 suture was used for apposing muscle layers and Nylon for skin. Post operatively the dam was maintained on fluids, antibiotics and other supportive therapy. The animal was reported to have recovered uneventfully.

Results and Discussion

A cross bred Holstein Friesian heifer presented with dystocia was diagnosed with foetal monster on per vaginal examination. Caesarean section was performed to remove the foetus from the dam. The calf when removed after caesarean section was found to be monocephalus tetrabrachius tetrapus dicaudatus monster. The dam was administered fluids, antibiotics and other supportive therapy post operatively. The animal reported to have recovered uneventfully.

Fetal monstrosity develops when a disturbance occurs in the development of various organs and systems which can cause a great distortion in the individual (Vegad, 2007). The incidence of fetal monstrosities is rare but when it occurs it often leads to caesarean section or fetotomy (Sharma *et al.*, 2013). Dystocia that occur due to fetal monsters are relieved by caesarean section more than fetotomy as it is of limited usefulness except in a few cases of monsters (Dholpuria *et al.*, 2016). Caesarean section can be done in the left oblique ventro-lateral site, as this site causes minimum post operative contaminations and lesser post-operative complications (Verma *et al.*, 1974 and Singh *et al.*, 1978).

Fig.1 *Monocephalus thoracophagus tetrabrachius tetrapus dicaudatus* monster calf delivered through caesarean section



Acknowledgement

The author would like to acknowledge Director, Kerala Animal husbandry Department and District Animal Husbandry Office, Idukki for providing the facilities for the successful completion of the work.

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How to cite this article:

Nijin Jos, B. M. 2020. Techniques for Determination of Vitamin B6, Vitamin C and Variability in Areca Nut (Areca catechu) Samples of Karnataka, India. *Int.J.Curr.Microbiol.App.Sci.* 9(07): 2873-2876. doi: <https://doi.org/10.20546/ijemas.2020.907.340>