Case Report

MANAGEMENT OF DYSTOCIA DUE TO AN ISCHIOPAGUS MONSTER IN CROSSBRED COW AND ITS CORRECTION WITH SUBCUTANEOUS FETOTOMY - A CASE REPORT

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ABSTRACT

A crossbred cow in her third parity was presented in the clinics with history of complete gestation period and dystocia. The three limbs were protruding through the vulva without further progress in delivery in spite of traction applied by local area veterinarian. Per vaginum examination revealed fetal monstrosity and a decision to perform subcutaneous fetotomy was taken which resulted in delivery of an ischiopagus monster.

Keywords: Cow, Conjoined twins, Dystocia, Ischiopagus monster

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The monstrosity is usually associated with either infectious disease or congenital defects (Arthur *et al.,* 2001) that involves various organs and systems which can cause great distortion of the individual (Vegad, 2007) and result in dystocia at birth. The etiology of congenital anomalies is often unknown (Jones and Hunt, 1983). However, the important known etiological agents are prenatal infection with a virus, poisonous chemical ingestion by pregnant animal, vitamin deficiency, genetic factors and/or combination of these factors (Sharma *et al.,* 2010). Abnormal embryonic duplications resulting in conjoined twins are rare in bovines (Singh and Pandey, 2013). Occurrence of dystocia due to conjoined twin monsters has been reported earlier in cows. In this paper, successful management of a rare case of dystocia due to an ischiopagus monster in a cross bred cow and it's per vaginum delivery following subcutaneous fetotomy is reported.

A pluriparous cross bred cow in her third parity with full term gestation was presented in its 2nd stage of labor; it had ahistory of failure of expulsion of the fetus and dystocia and was presented to the Clinics of Department of Veterinary Gynaecology and Obstetrics, College of Veterinary and Animal Science, Bikaner, Rajasthan.

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Previous history of the animal revealed that the animal calved normally in previous gestations. It was also reported by the owner that the cow was straining for the last 8 hr, both the water bag ruptured and three limbs came out through the vulva but the fetus could not be delivered. Subsequently, the local area veterinarian tried to remove the fetus manually by traction but failed. On presentation to the clinic, the general condition of the animal appeared normal; the vitals included - rectal temperature 101.4 °F, heart rate (65 beats/min) and respiratory rate (33 breaths/min), all of which were within the normal ranges. The intravaginal exploration was done under an epidural block using 2% xylocaine. Per vaginum examination revealed that both the hind limbs and one fore limb of the fetus were impacted in the birth canal. Repulsion of hind limbs were tried but failed and animal owner agreed only in vaginal delivery so in this condition it was decided to deliver the fetus per vaginum by fetotomy. All the impacted limbs within the birth canal were removed by subcutaneous fetotomy, then corrected the position of one of the flexed fore limb and head. Lastly forced traction was applied on corrected extremities and a co-joined twin monster was relived. The twins had double head (dicephalus) and were fused in their pelvic regions (ischiopagus) (Fig.). As per Roberts (2004) the condition could be classified as an ischiopagus twin monster which includes twins joined at pelvic region and heads in opposite directions.

Post procedural care of the cow included IV infusion of fluids (1.5 liters Ringer lactate, 3 liters 5% dextrose and 350 ml calcium boro gluconate) and administration of antibiotics (Inj- Mofoi 25 ml I/M, Bovion), anti-inflammatory (Inj-Megludyne 8ml I/M, Virbac) and antihistaminic drugs (Inj- Anistamin 10 ml I/M, Intas). Intrauterine passaries (Bol-Cleanex 8 boli, Bohrenger) and herbal uterine cleanser (Liq- Utrasafe 100 ml orally for 5 days, Vet Mankind) were also given. The owner was advised to follow up the treatment for next 3 days and the cow made an uneventful recovery.

Various factors like genetic and environmental factors were responsible for the failure of twins to separate after the 13th day after conception (Srivastava *et al.,* 2008) and resulted in conjoined twins. These consist of two fetuses joined together and usually arise from a single ovum and considered monozygotic. The duplication may occur in either anterior or posterior part of the body, the former being more common. The duplicated parts and increased number of limbs resulted in dystocia. A majority of the conjoined monsters were dead during dystocia and the efforts to relieve dystocia in such cases were often aimed at fetotomy and caesarean was adopted as a last resort (Purohit *et al.,* 2012). Dystocia due to ischiopagus conjoined twin monster was rarely reported in cows while it has been reported in buffaloe (Simon *et al.* 2009 and Jasmer *et al.,* 2016). Present case (as previous calving was normal) during embryonic development with early complete duplication of cranial and caudal parts. Present report indicated that in sufficiently dilated birth canal co-joined fetal monster can be corrected through vaginal route by fetotomy in cow and save the animal from post-cesarean complications.

Fig. Ischiopagus conjoined twin monster of a cross bred cow

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