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Dystocia due to monocephalus tetrabrachius tetrapus monster fetus in a doe: A case report

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Abstract

A successful delivery of a monocephalic, tetrabrachius, tetrapus monster fetus through Caesarian section is reported.

Keywords: Doe, fetal monster, dystocia, caesarian section

Introduction

Monsters are abnormal fetuses that usually have altered appearance (Purohit, 2006) [9]. Fetal anomalies and monstrosities are common cause of dystocia in livestock (Shukla *et al.*, 2007) [11] and are disturbances of development that involve the sexual organs and cause great distortion of the individual (Vegad, 2007). They are usually associated with either with infectious diseases or congenital defects (Arthur *et al.*, 2001) [2] and may or may not interfere with birth (Sharma *et al.*, 2010; Gupta *et al.*, 2011) [10, 5]. Abnormal duplication of germinal area in fetus will give rise to congenital fetal abnormalities with partial duplication of body structure (Robert, 2004). It is important to know various types of monsters which cannot be removed without Caesarean section most of the time (Gupta *et al.*, 2011) [5]. Fetal anomalies and monstrosities of various types have been reported in cows and buffaloes but are very rare in small ruminants. The present report records a dystocia due to a monocephalic tetrabrachius tetrapus dicaudatus monster in a doe.

Case History and Clinical Observation

A four years old doe was brought to the Veterinary Hospital with the history of dystocia and three hind limbs protruding from vagina for the past 7 hours (Fig. 1). The case was attended by a local veterinarian by traction but the attempt to deliver the fetus was futile. The general clinical examination of the doe showed a pale visible mucus membrane, 38 °C body temperature, 80/ min respiratory rate and continuous straining. Per vaginal examination revealed a patent vaginal passage, dry birth canal, fully dilated cervix and presence of two fetuses with single head inside the uterus. The fetuses were in posterior- longitudinal presentation and dorso-sacral position. Considering the condition of the animal it was decided to perform cesarean section to deliver the fetus and save the dam.

Treatment and Discussion

The doe was stabilized with the administration of inj. DNS-1 liter i/v. The caesarean section was performed on the left lower flank region as per standard procedure and fetuses were delivered. Postoperative fluid therapy (Ringer lactate and 5% DNS) intravenously for three days, 1.0 gm of ceftriaxone intramuscularly for six days and meloxicam intramuscularly @ 0.5mg/kg body weight for three days were administered. Skin sutures were removed on 12th post surgical day. Postoperatively, the animal recovered uneventfully. The gross examination of the fetuses revealed a male dead conjoined monocephalus twin with four fore limbs (Tetrabrachius), four hindlimbs (Tetrapus) and two pelvises (Dicaudatus) (Fig. 2).

Congenital defects are structural and functional abnormalities present at birth because of developmental disturbances. These abnormalities may interfere with development of an organ, parts of a system or the entire system (Noden and De Lahunta, 1985) [8]. Duplication anomaly has been mostly reported cranially in cattle (Hiraga and Dennis, 1993) [6] and caudally in sheep (Dennis, 1975) [4]. Caudal duplication is an abnormality beyond locomotor and which usually affects the digestive, urogenital and even respiratory systems. It forms a graded series from slight duplication to near separation of two fetuses caudocranially (Hiraga and Dennis, 1993) [6].

In monocephalus conjoined twins, duplication process may cranially proceed up to the head region. This kind of developed conjoined monocephalus twin has been reported in many domestic species (Aine, 2009 and Buhari *et al.*, 2008) ^[1-3]. Conjoined twins may be caused by any number of factors, being influenced by genetic and environmental conditions. It is presently thought that these factors are responsible for the failure of twins to separate after the 13th day after fertilization (Srivastva *et al.*, 2008) ^[12]. Jones and Hunt (1983) ^[7] stated that many congenital anomalies are essentially unknown; however, the important known causes are prenatal infection with a virus, poisons ingested by mother, vitamin deficiency (A and folic acid), genetic factors and/or combination of these factors.



Fig. 1: Fetal hind limbs protruding from vagina



Fig 2: Monocephalus Tetrabrachius Tetrapus twin lamb.

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