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A rear case of bulldog monster fetus with anasarca in goat

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Abstract

Fetal anomalies and monstrosities of various types have been reported in cows and buffaloes but are very rare in small ruminants. The present paper reports the successful management of dystocia due to a bulldog monster with fetal achondroplasia with anasarca in a doe. A ten years old, non-descript goat in its fifth parity was presented with the history of full-term gestation, ruptured amniotic sac, no further signs of kidding and no signs of straining since twelve hrs. On careful clinical and per vaginal examination the case was diagnosed as dystocia due to incomplete dilation of the cervix with secondary uterine inertia and the presence of abnormal fetus in the birth canal. After manipulation dystocia was successfully relieved and a monster fetus was delivered. The fetus resembled the characteristic of 'Bull dog Monster'. The goat recovered uneventfully without any complications.

Keywords: Goat, dystocia, bull dog monster, fetal achondroplasia, anasarca

Introduction

Bull dog monster is fetal anomalies have been reported in large ruminants *viz.* buffaloes and cows but rare in sheep and goats. The current study describes a ten-year-old, nondescript goat in its fifth pregnancy that appeared with a 12-hour history of difficult labour. The labour was caused by inadequate opening of the cervix and the presence of an aberrant foetus in the birth canal. After successfully relieving the dystocia monster fetus delivered having characteristics of Bull dog Monster.

Case history and observations

A ten-year-old non-descript doe on its 5th gestation was brought to Teaching Veterinary Clinical Complex, PGIVAS, Akola, (Maharashtra, India) with a history of dystocia for the past 12 hours. Per vaginal examination revealed a patent vaginal passage, dry birth canal, incomplete dilation of the cervix and the presence of a dead fetus inside the uterus with no signs of straining. On clinical examination one left hind limb along with fetal intestinal loop was protruding out through the cervix and the rest of the body was located inside the uterus with posterior longitudinal presentation and lumbo-sacroiliac position. So, it was decided to deliver the fetus per vaginally by postural correction and applying manual traction. Roberts, (1971)^[1] studied that the teratological development or arrest in the development of ovum may result in the death or malformations of the antenatal individuals, resulting in dystocia. He further also stated that fetal monsters are not necessarily large per se, but they are deformed and hence may result in dystocia.

Treatment

The birth canal of doe was properly lubricated and the left fetal hind limb protruding out through the cervix of the dam was repositioned back into the uterus to correct the abnormal position of the foetus and then by holding both the hind limbs forced traction was applied and relieved the dystocia (Fig 1). Goat was treated with bolus Clenex @ 2 boli Intrauterine, Inj. Enrofloxacin 5 mg per kg bd wt. I/M, Inj Meloxicam 0.5 mg per kg bd wt, Inj Multivit- 2 ml and 200 ml of 5% Dextrose intravenously. Treatment was continued consecutively for three days. Feed, water intake, and other clinical parameters were restored at normal levels on third

day of treatment.

Results and Discussion

The foetal examination indicated the presence of a female offspring with widespread swelling, a head like that of a bulldog, a swollen neck and belly, extremely short limbs, and a weight of around 5 kg. These findings indicate the occurrence of teratogenic achondroplasia, which is accompanied with the presence of excessive fluid accumulation in the body (anasarca) (Fig. 2). The foetal abdominal viscera, including the intestines, liver, and urine bladder, were projecting from the abdominal cavity. The Bulldog Monster's anatomical configuration established its identity. A bulldog (achondroplastic) foetal monster is a malformed foetus characterised by a compressed skull, a flat head with a sloping or bulging forehead, a small nose separated by furrows, and a reduced upper jaw with short and stumpy limbs (micromelia), resulting in a bulldog-like facial look [2]. Jayachandra *et al.* (2013) [3] reported similar findings. Although dystocia caused by bull dog calf is uncommon, it has been documented in cows [4], buffaloes [5, 5], and ewes [7].

The bull dog calf exhibits a highly pronounced manifestation of achondroplasia, which may be linked to a single autosomal recessive gene. Typically, the obstetrician may facilitate delivery manually, with the assistance of enough lubricant [8]. Genetic factors, like as achondroplasia in Dexters, are responsible for congenital malformations that are significant in veterinary obstetrics [9]. During meiosis, the genetic composition of cells can be changed by non-disjunction, translocation, or deletion of chromosomes. If these modifications are significant, the zygote often does not survive beyond early gestation. [10] However, in certain cases, the zygote may live longer but develop into abnormal foetal organisms. Abnormalities in foetal development can lead to a disproportionate size and cause difficulties during delivery, known as dystocia. Unusual factors that can lead to excessive foetal growth include foetal anasarca and foetal hydrops. According to Ali (2011) [11], the occurrence of difficult labour in goats caused by oversized foetuses is 3.2%, whereas the occurrence caused by abnormal foetuses is 1.4%. Foetal anasarca and achondroplasia have been observed in big ruminants, but they are extremely rare in sheep and goats.



Fig 1: The exhausted Goat after Dystocia along with Bull Dog Monster



Fig 2: Bull Dog Fetal Monster with bulldog head, short limbs and generalized edema in a Goat

Conclusion

In conclusion, the examination of the foetus revealed characteristics consistent with teratogenic achondroplasia, manifesting as a bulldog-like appearance with widespread swelling, short limbs, and other associated abnormalities. This condition, although rare, has been documented in various species, including cows, buffaloes, and ewes. Genetic factors play a significant role in the development of such congenital malformations, with achondroplasia being a notable example. Abnormalities in foetal development, such as anasarca and hydrops, can lead to disproportionate growth and dystocia during delivery. While such occurrences are relatively uncommon in small ruminants like sheep and goats, they remain important considerations in veterinary obstetrics. Understanding the genetic and developmental mechanisms behind these conditions is crucial for managing and mitigating associated risks during pregnancy and parturition.

Conflict of Interest

The authors declare that there is no conflict of interest.

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