DYSTOCIA DUE TO FETAL ARTHROGRYPOSIS IN A SHEEP

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ABSTRACT

A case of dystocia in a sheep due to fetal arthrogryposis and its successful clinical management is discussed.

Keywords: Dystocia, Arthrogryposis, Sheep

INTRODUCTION

Arthrogryposis, a congenital defect with contracted tendons and flexed joints is seen in all breeds of cattle, sheep, horses, pigs. Ankylosis inherited as an autosomal recessive gene with complete penetrance in homozygous state has been reported in sheep (Murphy *et al.,* 2007). In addition to heredity, environmental agents can also cause this syndrome. Grazing of sorghum pastures has been associated with congenital arthrogryposis in cattle, horses and sheep (Bradley *et al.*, 1995). Most common in Charolais cattle, in which it can be associated with other defects, such as cleft palate and spina bifida (Nawrot *et al.,*1980). Prenatal infections with Akabane virus in cattle (Konno and Nakagawa., 1982), cache valley virus in lambs (Bermejello, 2003) were also attributed to be the causes of arthrogryposis. The present paper places on record a case of foetal arthrogryposis and its successful pervaginal delivery in a sheep.

CASE HISTORY AND OBSERVATIONS

A Nellore brown sheep in its first parity was presented at Department of Veterinary Gynaecology & Obstetrics, N.T.R College of Veterinary Science, Gannavaram with history of complete gestation period and severe straining for the last 8 hours, restlessness, reduced feed and water intake. Physically the animal was dull, depressed. Per-vaginal examination revealed dry birth canal and the fetus was in posterior longitudinal presentation dorso sacral position with both hind limbs flexed at hock.

TREATMENT AND DISCUSSION

Animal was restrained in right lateral recumbency and the perineal region was cleaned with 0.1% KMNO4 solution. Flexed hock of the fetus was grasped and repelled forward and lateral while the foot is drawn caudally and medially and extended through the birth canal. The procedure was repeated for the other hind limb. Traction was applied and dead female foetus was delivered successfully. The dam was treated with Enrofloxacin @5mg/kg b wt, Meloxicam @ 0.1mg/kg bwt and 5% dextrose normal saline 250 ml IV for 3 days. The ewe showed uneventful recovery.

All the four limbs of the monster lamb had curvature and multiple articular rigidity (Fig 1). The affected lamb has scant muscle development. The rest of anatomical features and internal organs were normal.

The arthrogrypotic lamb was the offspring of phenotypically normal parents. Apart from genetic (Murphy *et al., loc. cit*), toxic (Bradley *et al.*, 1995), infectious agents (Bermejello, 2003) the principal cause of arthrogryposis is believed to be due to decreased fetal movements (akinesia) caused by maternal or fetal abnormalities (Lazar *et al.*, 2008). The rigidity of joints in the present case may be due to involvement of genetic factors.

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Fig 1. Ankylosed limbs