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Case report

***Perosomus elumbis* in a day old udah neonate lamb in Sokoto, Nigeria**

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ABSTRACT

Perosomus elumbis is a rare congenital anomaly of unknown aetiology. It is characterized by errors of morphogenesis resulting in multi-organs malformations that produce a deformity of the caudal one third of the foetus. Spinal and pelvic malformations are evident, structural anomalies such as arthrogryposis of the hind limbs, ankylosis of joints, with associated malformations of the musculature. This is a case of a new born Uda lamb, with the Chief complaint of inability to stand two hours after lambing. History revealed that the dam delivered them as twins, one of which was normal. On clinical examination the lamb was recumbent but alert. The fore limbs were well developed and appeared normal. The lumbo-sacral area was excessively narrow, with a skin fold attaching the crus (Tibia and Fibula). There was an ankylosis of the stifle and hock joint and were maintained in a flexed position. The response to pin prick on the hind limb was poor. However, both anal and vulval openings were patent. Radiography revealed hypoplasia of the lumbar vertebrae, pelvic girdle, the iliac wing, the ischium and the pubis. There is a convergence of the Ischial arches towards the public symphysis; the wing of the ischium is absent bilaterally. There is an

ankylosis of the stifle and tarsal joints in flexed position. However, all the bones of the hind limbs are present.

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1. Introduction

Perosomus elumbis is a rare congenital anomaly of unknown aetiology (Roberts, 1986; Arthur *et al*, 1996). It is characterized by errors of morphogenesis resulting in multi organ malformations that produce a deformity of the caudal one third of the foetus (Jones, 1999). Spinal and pelvic malformations are evident, structural anomalies such as arthrogryposis of the hind limbs, ankylosis of joints, with associated malformations of the musculature. *Perosomus elumbis* has not been reported in northwest Nigeria.

On the 6 January, 2009 a client presented to the Veterinary Teaching Hospital, Sokoto, A new born Uda lamb, with the Chief complaint of inability to stand two hours after parturition. History revealed that the dam delivered them as twins one was normal. On clinical examination the lamb was recumbent but alert. The fore limbs were well developed and appear normal. The response to pin prick on the hind limb was poor. However, both anal and vulval openings were patent. Radiography revealed hypoplasia of the lumbar vertebrae, pelvic girdle,(the iliac wing, the ischium and the pubis) and hypoplasia of the sacral vertebrae. The sacral vertebra terminates within the pelvic cavity. There is a convergence of the Ischial arches towards the public symphysis. There is an ankylosis of the stifle and tarsal joints in flexed position. However, all the bones of the hind limbs were present.

2. Discussion

The Uda ewe is one of the main sheep breed in Northern Nigeria. It is a large breed of sheep, with characteristics two colored coat either black or brown in the anterior and white colour to the posterior. A number of congenital anomalies have been reported in other specie including the Uda but not *Perosomus elumbis*. The findings on the lamb agrees with several reported cases are regards poor structural development of the lumbo-sacral spiral cord and vertebrae which includes arthrogryposis of the hind limbs, characterized by ankylosis of joint and associated malformations of the musculature (Jones, 1999; Arthur, *et al*; 1996; Dennis, 1974; Roberts, 1974). Foetal congenital anomalies are of interest to veterinary obstetricians primarily because of their frequent incidence of causing Dystocia when ever they occur. Several congenital conditions have been reported to occur in several cases causing Dystocia in our local breeds of animals, congenital condition such as schistosomus reflexus, Hydrocephalus, Conjoined twins, foetal anasarca etc have all been reported from this part of the country.

In *Perosomus elumbis*, there is hypoplasia or aplasia of the spiral cord of the fetus caudal to the thoracic region. The lumber-sacral region including the hind limbs which are normally supplied by lumbar and sacral nerves exhibit muscular atrophy and joint movement does not develop. There is ankylosis of the hind limbs, possibly as a result of lack of movement by the developing foetus. In anterior presentation the foetus may be as normal lamb, but in posterior presentation could be readily recognized. Delivery is mostly by manual traction or caesarean section and in most cases the foetus are born dead. The lamb in this case was alive. Most of the *Perosomus elumbis* cases were born. The lamb in this case may not be viable if you consider that it can not move as such it is very likely going to die of starvation in recumbence. A post mortem was not carried as suggested by Jones, (1999) to get greater insight into the organ anomalies. The client supports the lamb with milk and did not surrender the lamb.

In a study eight lambs affected with *Perosomus elumbis* were examined during a 3 year investigation; one died at two days. Typically, the affected lambs had an infantile pelvis, thinner and smaller femurs, tibias and metatarsal bones, muscular atrophy, arthrogryposis involving most joints of the hind limbs, and five had tell malformations. Associated malformations were multiple and included atresia ani unilateral renal agenesis, cryptorchidism, perineal and diaphragmatic hernias,Cerebellar hypoplasia and hydrocephalus. Five of the affected lambs were males lambs examined from a large sheep population over a 3 year period suggests that *Perosomus elumbis* (Dennis, 1975)

A normal radiograph of the cervical vertebrae was seen also due to lack of lumbo sacral attachment and support, sagittal collapse within fusion of the wings of iliac was evident. This agrees with reports of Jones (1999) in a still born Holstein calf. Congenital anomalies in foetuses resulting in monstrosities are a common cause of reproductive problems in domestic animals and as such are of great interest to obstetricians. The were absence of the lumbo-sacral vertebrae with its associated nervous supply results in rigidity of the foetus and failure of the Foetus to en-utero to adjustment and assume normal posture, position and presentation to facilitate normal passage through the bath canal.

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