

Dystocia Due to Mummified Foetal Monster in a Yankasa Ewe: A Case Report

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Abstract: A 1 year old Yankasa ewe weighing 24 kg was presented to the Large Animal Clinic unit of the Veterinary Teaching Hospital, University of Agriculture Makurdi, Nigeria. The owner complained that she has been in labour for 24 h without delivery. Vital parameters were taken and found to be within the normal ranges. The patient underwent general and obstetrical examination. A diagnosis of dystocia was made with the anterior presentation of the fetus, bilateral carpal and shoulder flexion and lateral deviation of the neck. Manual traction to deliver the foetus was not successful. Caesarean section was performed with the patient under sedation and epidural anaesthesia and the dead foetus removed. Recovery post surgery was complete and the ewe was discharged five days post surgery.

Keywords: Caesarean section, dystocia, foetal monster, yankasa ewe

INTRODUCTION

The Yankasa sheep is the most numerous and widely distributed of Nigerian breed of sheep (Adu and Ngeren, 1979). They are long legged and are found mainly in the sub humid and semi-arid zones of the country. They are of medium body size, hairy and predominantly white in colour with black patches around the eye, ear, muzzle and horn.

Dystocia or difficult birth (Gyang, 1990; Arthur *et al.*, 1996) occurs more frequently in cattle and sheep than goats (Hanie, 2006). Ewes lambing for the first time or those carrying single foetus are much more susceptible to dystocia (Jackson, 2004).

Losses suffered by the livestock industry as a result of dystocia have been reported by Arthur (1975), Greene (1984), Gyang *et al.* (1984) and Arthur *et al.* (1996). The incidence of dystocia in the various animal species was reported to be in the range of 1-31% (Arthur *et al.*, 1986, 1996; Omamegbe, 1978; Roberts, 2004 1971).

The incidence of dystocia generally is influenced by factors such as breed of the sire, breed of the dam, age of the dam, number of foetus and body weight of the dam (Hanie, 2006). Fetal malposition especially lateral deviation of the head and obstruction of the birth canal especially failure of the cervix to dilate (Ring womb) are the most common causes of dystocia in sheep (Jackson, 2004).

The conceptus is vulnerable especially in its early life to various adverse factors that might kill it, inflict serious damage or cause minor but not life threatening

injury. The fate of the conceptus when exposed to adverse factors depends on the severity and nature of the challenge and on the age of the conceptus (Jackson, 2004). The adverse factors affecting the conceptus includes genetic abnormalities involving either the autosomes or the sex chromosomes, failure of hormonal support-especially progesterone, ailure of the maternal body to recognize the presence of the embryo, environmental stress like extremes of temperature, starvation and radiation, infection affecting the conceptus, its placenta or the uterus, hemical and immunologic factors.

Foetal monsters arise from adverse factors affecting the foetus in the early stages of its development. The adverse factors are mostly of genetic origin but may also include physical, chemical and viral factors (Jackson, 2004). A foetal monster usually has severe physical damage that affects its appearance but may not cause its death in the uterus. The various types of monsters and congenital abnormalities in farm animals reported in literature include conjoined twins, Schistosomus reflexus, perosomus elumbis, hydrocephalus, foetal anasarca, foetal ascites and chodroplastic monsters (Arthur *et al.*, 1996).

During foetal mummification the dead foetus remains in the closed uterus with its foetal and body fluid resorbed. The corpus luteum is still active and the dam does not return to oestrus. The mummified foetus becomes dry and paper-like (Jackson, 2004). The aim of this paper is to report a case of foetal monster managed using caesarean section. What is the aim of this case report?

Case report: A 1 year old ewe weighing 24 kg was presented to the Veterinary Teaching Hospital of University of Agriculture, Makurdi with complaint that she has been in labour for 24 h. The ewe was purchased from the market few months earlier after service. There was no history of previous parturition.

Clinical examination: The vital parameters were temperature 38.2°C, pulse rate 108 beats/min and 32 cycles/min for respiratory rates. The ewe was straining and in pain, with discharges from the vagina. Vaginal examination revealed a dead foetus in anterior presentation with bilateral carpal and shoulder flexion and the head deviated laterally. Attempt to manually deliver the foetus through traction was not successful. Caesarean section was therefore recommended.

Surgical technique: The patient was sedated using an intramuscular injection of with [0.1 mg/kg of xylazine hydrochloride 2% (trade name and manufacture) intramuscularly. Epidural anaesthesia was achieved with 3mL of 2% lidocaine injected in the space between the first and second coccygeal vertebrae. An oblique skin incision was made in the left paralumbar fossa and continued through the subcutaneous tissue as well as the internal and external abdominal oblique muscles. Transversus abdominus muscle was also exposed and incised with the scissors. The peritoneum was tented and then incised with the scissors. This exposes the uterus which was exteriorized and incised on its greater curvature.

The dead foetus was then removed through the uterine incision. The foetus was found to be dry and paper-like with swollen face and head Fig. 1 and 2). The uterus and surrounding area were flushed with 300 mL of Normal saline and returned into the abdominal cavity. The uterine incision was closed with chromic catgut size 1-0 using two layers of Lambert suture pattern. The peritoneum and transversus abdominis muscle were closed with chromic catgut size 1-0 using simple continuous suture pattern. The subcutaneous tissue was closed with chromic cat gut size 1-0 using subcuticular suture pattern. The skin incision was closed with nylon size 1-0 using horizontal mattress suture pattern because of tension on the incision line. Post operative management included the injections of (trade name: Steripen[®], concentration: 1 mL per 3,000 IU of procaine penicillin G 1,000 IU of benzyl penicillin and manufacturer's name: Shijiazhuang Pharma group, Zhongnuo Pharmaceutical Factory Co. Ltd. china) Procaine Penicillin G 20,000 IU/kg body weight: Dihydrostreptomycin 10 mg/kg body weight. Oxytocin (Trade name: Pitocin[®], concentration: 10 IU/mL and manufacturer's name: Shijiazhuang Pharma



Fig. 1: Foetal monster showing swollen head and flexed carpal and shoulder joints

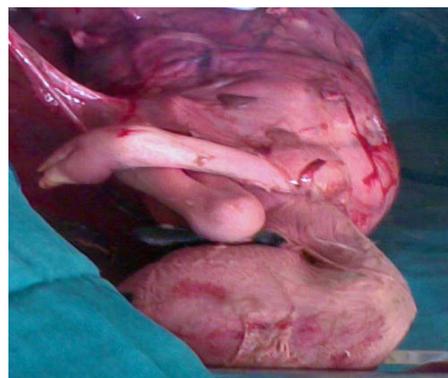


Fig. 2: Foetal monster looking dry and paper-like

group, Zhongnuo Pharmaceutical Factory Co. Ltd. china) at 10 IU route of administration and Diclofenac sodium (Trade name: Dichlofenac sodium injection[®] at 1 mg/kg, concentration: 25 mg/mL and manufacturer's name: LABORATE Pharmaceutical, India) intramuscularly. These drugs were administered for 3 days.

DISCUSSION

Foetal monsters are relatively uncommon and are sporadic in occurrence and the incidence is higher in cattle than in other species (Jackson, 2004). Monstrosities and other congenital abnormalities cause dystocia and economic loss in food animals through decreased calf and lamb crop yields, early culling and increased medical bill (Gyang *et al.*, 1984).

Foetal mummification occurs in all species. In the ewe, mummified foetuses are occasionally diagnosed when the members of the flock that have either passed their prospective lambing date or do not look as heavily pregnant as her dates suggest are checked or examined.

Ultrasonographic scan through the rectal wall will confirm the diagnosis (Jackson, 2004).

While handling a dystocia case, careful examination of the foetus should be performed to establish the signs of a monster. These signs may include deformed limbs, ankylosed thin limbs with prominent joints, improper placement or location of extremities, atrophied muscles and smaller foetal size (Roberts, 2004). In the handling of dystocia due to monsters the obstetrician must thoroughly examine the foetus and birth canal to determine if it is possible to deliver the foetus successfully. Handling cases of foetal monsters could be challenging for the veterinary obstetrician as it is not possible to palpate the whole structure per vaginum, due to the relatively narrow birth canal. Therefore recognition of the exact disposition of the foetal extremities and an estimate of foetal size may be very difficult (Arthur *et al.*, 1996). In this case the obstetrician must consider the use of traction to deliver the foetal monster after lubricating the birth canal with K-Y Jelly. If vaginal delivery is going to be complicated the obstetrician should carry out caesarean section without delay if the foetus is alive or fetotomy if the foetus is dead.

Although the foetus was dead, a decision to perform caesarean section. Fetotomy avoids major abdominal surgery, minimal postoperative care rapid recovery and fewer complications than a caesarean section. However, the risk of lacerations and punctures of the ewe's reproductive organs that may affect her breeding potentials when fetotomy is performed informed the choice for caesarean section in this particular case. In addition, any prolonged obstetrical procedure tends to damage the lining of the vaginal and cervix, resulting in scar tissue and adhesions that interfere with future attempts to conceive and carry a foetus. Moreover, fetotomy is rarely needed in sheep and goats but may be performed if deemed necessary (Hanie, 2006).

Caesarean section is a fairly common surgical procedure in ruminants. In many cases it is faster and safer than fetotomy. The only disadvantage being that in small ruminants, the clinician is limited by the size of the female pelvis and reproductive tract, making treatment of complicated dystocias difficult (Hanie, 2006). Fortunately, caesarean section in these species is

a straight forward procedure with good survival rates for both dam and offspring. An additional advantage is that the procedure can also be done using local anaesthesia with or without sedation.

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