A case report of dystocia treated by caesarean section in a primer West African dwarf doe

¹Ukwueze, C. O., ¹Babalola, S.A., ¹Ukaha, R. O. and ²Raheem, K.A.

Department of Veterinary Surgery & Radiology¹,

Department of Theriogenology², Michael Okpara University of Agriculture,
Umudike

Abstract *Corresponding Author: adetoyinbabs@gmail.com; +234 8035970562

This is a report of dystocia in a West African dwarf primer doe presented to the Veterinary Teaching Hospital, Michael Okpara University of Agriculture, Umudike and was successfully treated by caesarean section. Digital palpation of the foetus through the birth canal showed a viable foetus and a very small pelvis inadequate to allow passage of foetus. The animal was prepared surgically and caesarean section was performed following a standard technique. A left flank incision was made and a viable female kid weighing 1.25 kg was successfully delivered. In conclusion, the success of the surgery accompanied with good prognosis as was observed with delivery of a viable foetus and dam once again emphasizes the need for a quick veterinary attention to a case of dystocia in animal species. Future fertility of the doe was not implied to be impaired.

Keywords: Caesarean section, Dystochia, Doe, Primer, Life kid

Introduction

Parturition in goat is determined by three major factors, namely the presence of a viable foetus that initiate the commencement of birth process, a dilated birth canal and an expulsive force derived from abdominal muscle and uterine contraction adequate to expel the foetus and placenta. Whenever there is a compromise in any of these, dystocia is very imminent. Obstetrical interventions to correct/treat cases of dystocia include manual traction, episiotomy, and caesarean section when dealing with a viable foetus and foetomy when the foetus is dead. Earlier surgical intervention during course of dystocia by performing caesarean section ensures satisfactory outcome with good prognosis for both foetus and dam. In this case, we report a case of West African dwarf (WAD) primer goat that had dystocia and successfully delivered through a caesarean section.

Materials and methods

History

A private Veterinary Practitioner in town consulted the Veterinary Teaching Hospital on a case of a WAD goat in difficult parturition. History reveals that the Doe has been in labour for six hours prior to presentation.

Clinical examination

A gloved hand was gently inserted into the birth canal through the vulva for digital palpation of the foetus and evaluation of birth canal using the fore and index fingers. The foetus had a normal disposition characterised by longitudinal anterior presentation and extended fore limb (Figure 1). The pelvis of the doe was too small that could have allowed the passage of the foetus, which was detectably still very viable. Hence, an immediate caesarean section was indicated. The animal was taken immediately to the large animal Surgical Theatre of College of Veterinary Medicine, Michael Okpara University of Agriculture, Umudike.

Dystocia treated by caesarean section in a primer West African dwarf doe

Figure 1: Doe with foetal presentation

Treatment

The animal was prepared aseptically for caesarean section. The Doe was sedated with diazepam at a dose rate of 0.1 mg/kg intramuscular (i.m) and controlled on right lateral recumbency. The left abdominal (paralumbur) lower flank as the surgical site, anaesthesia was achieved by local infiltration analgesia with 2 % Lignocaine adrenaline using the inverted L block technique.

Following left flank skin incision, the abdominal muscles were bluntly separated to create access into the abdominal cavity after incising the peritoneum. The gravid uterus was located and gently pulled into the incision site and carefully brought out on a laparotomy sheath. About 20 cm longitudinal incision was made on the less vascularised greater coverture of the uterus while carefully avoiding the caruncles. A life kid was withdrawn from the uterus along with the foetal membrane. The umbilical cord was ligated and severed to

separate the doe from the kid which was passed to the assistant surgeon for neonatal care (Figure 2). The placenta was left intact, to be naturally expelled by the doe. The uterus was infused with 10ml of Penicillin Streptomycin intrauterine prior to closure with inverted suture pattern (Lambert) using a size 2/0 chromic catgut and was carefully pushed back into the abdominal cavity.

Using size 2/0 chromic catgut with the simple continues suture pattern; the edges of the peritoneum were apposed alongside with the muscle and sutured. The subcutaneous tissue was also sutured in the same manner. The skin was neatly sutured with Nylon size 2 suture material using horizontal mattress suture pattern.

As soon as the kid was passed to the assistant surgeon, the foetal membrane was quickly removed from the nose and mouth to ensure patent airway. The whole body was later clean, dry with a clean towel, weighed (1.25 kg) and made to suckle the Doe (Figure 3).

Figure 2: Delivered Kid

Figure 3: Doe and the Kid suckling

Post operative care

Oxytocin injection was administered at the dose rate of 10 iu/im, to promote uterine contraction, to effect expulsion of the placenta, Procaine penicillin 20,000 iu/kg i/m x 5/7. Streptomycin injection 10mg/kg i/m x 5/7, Diclofenac injection 0.3mg/kg i.m x 3/7, Iron dextran 2ml i/m x 5/7,

Oxytetracyclin spray was applied on the wound surface. The skin sutures were removed on the 14th day post operatively.

Discussion

Dystocia is one of the most common obstetric conditions in small ruminant and of particular interest with primer ewe and doe

bred immediately after attainment of puberty. A prevalence of 7% was reported by Abdul Rahman *et al.* (2000), whereas Oloye *et al.* (2005) reported a prevalence of less than 7% dystocia in small ruminant around Abeokuta areas of Ogun State, Southwest Nigeria.

Incision on the greater curvature of the uterus and removal of the foetus by the extremities through the single incision made is a common practice. The most common reported complication following caesarean section in ewe was retained placenta, especially with animals that received prolonged assistance before surgery (Leontides *et al.*, 2000). However, placenta retention was not observed in this case possibly due to injection of oxytocin post operatively with optimal action in uterus primed with oestrogen. Though oestrogen was not given in this case, prior exposure during the course of the parturition might have been sufficient to initiate the oestrogen receptor necessarily to induce oxytocin receptor.

In conclusion, the success of the surgery accompanied with good prognosis as was observed with delivery of a viable foetus and dam once again emphasise the need for a quick veterinary attention to a case of dystocia in animal species. Future fertility of the doe was not implied to be impaired.

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