

Study on Fetal Dystocia due to Breech Presentation in Andaman Local Goat

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Abstract

Dystocia or difficulty in birth in a goat doe is an emergency problem and needs immediate veterinary assistance for the successful normal parturition or forced manipulative delivery. An adult Andaman local goat doe of two years with weighing 15 kg was reported with the history of difficulty in giving birth, hanging of tail in the vulva and animal continuously straining. Fetus tail was observed as protruding out and hanging from vulva. Physical evaluation through per vaginal examination revealed that the doe was suffered with the condition called as fetal dystocia. Treatment and management plans given to the goat doe were manipulative and expulsive delivery of the one big size fetus via repulsion, traction and expulsion method. Post-operative treatment was given with Inj. Flunixin meglumine @ 2.2 mg/kg bwt, Inj. Ceftiofur sodium @ 0.1mg/kg bwt I/v, Chlorphenaramine maleate @ 0.5 mg/kg bwt i/m, intrauterine dispensing of Furea (Pfizer India Ltd.) bolus 1 gm and fluid therapy [Inj. Ringer's lactate 250 ml I/v, Inj. Dextrose 25% 250 ml I/v, Inj. Calcium Borogluconate @ 1ml/kg bwt I/v once in a day] for 5 days. However, the doe was eventually died.

Keywords: *Dystocia, breech presentation, Andaman local goat, management*

Introduction

Dystocia is a condition where animal fails or difficult to deliver or expel the young one at the time of kidding or parturition and veterinary intervention or assistance becomes a necessity (Youngquist *et al.*, 2007; Blood *et al.*, 2011). Incidence of dystocia in goats is decided by two different factors; first is the fetal factor such as oversized fetus, malpresentation of kid, malposition, congenital abnormalities and postural defects. Second, the mother involvement (maternal) factors such as over feeding or over fattening of dam during pregnancy, small pelvic canal diameter, uterine inertia in polytocus goats or small mother with big size fetus (Pugh *et al.*, 2012). Risk of losing the mother and its kid increases with delay in management or treatment of dystocia and necrotic metritis is happened while prolonged period of dystocia in goats which is usually fatal leads to death of dam and fetus (Mee, 2008; Christos *et al.*, 2012). This type of dystocia cases need to be handled as emergency medical or surgical problem (Scott, 2006.). In caprine species, incidence of dystocia is ranged from 20 to 30% (Jackson, 1995; Noakes *et al.*, 2009). In one report, the incidence was reported as 8.23 % (Mehta *et al.*, 2002).

Similar obstetrical problems were observed in sheep as reported in goat (Rahim and Arthur, 1982; Majeed, 1994), however, the incidence of the dystocia was lower in sheep than in goat (Sharma *et al.*, 1999). Capability distinguish the type dystocia is considered as an important task in treating the dystocia for veterinary professionals. Again the incidence of dystocia due to fetal origin is 52.9% and maternal origin is 47.1% in goats. Dystocia due to fetal origin is either in anterior (39.5%) or posterior presentation (7.25%) of kids. Cervix dilation failure is the cause of dystocia in 27.4% cases. Moreover dystocia is more prevalent in goats bearing male kids (63.4%) than the female kids (36.6%). Similarly the mortality rate of the kids was also reported as 61.1%. In this case presentation study, a case of fetal dystocia due to breech presentation in an Andaman local goat is reported. In this report, a case of fetal dystocia (large kid size) due to breech presentation in an Andaman local goat is reported.

Case History and Observation

Two years old Andaman local goat in first parity completed full gestation period was presented with dystocia in goat breeding farm, ICAR-CIARI, Port Blair,

Andaman and Nicobar Islands during morning hours for not delivering fetus, however the straining of goat suggested that kidding was started from late mid-night. The first water bag has been ruptured and fluid was oozing out and foetal tail was hanging from the vulva but goat was not delivering the kids. All the important delivery signs were normal and straining continuously. The tail was hanging from the vulva on external examination. The external genitalia and surrounding areas were cleaned with liquid soap followed by weak potassium permanganate solution (slightly warm) before start of actual per-vaginal examination. Careful per-vaginal examination was conducted with sterile lubricated gloved hand. The cervix was completely dilated and presence of fetal reflexes suggested that live fetus inside the uterus. The foetus was in posterior longitudinal presentation, dorso-sacral position with complete retention or extension of the hind limbs beneath the body (breech presentation or dog sitting posture). Thus it was diagnosed that the goat is suffered dystocia due to breech presentation with big size fetus.

Management of Dystocia

The dystocia is corrected and managed with the process of repulsion, correction and extraction. Lubrication of birth canal and gloved hand with use of liquid paraffin, corrected the abnormal posture of fetus with use of repulsion and traction techniques where the fetus was forced to push back into the spaced uterine cavity to correct the posture by grasping the anterior aspect of tibia of the foetal leg back into a hock-flexed posture as the fetal rear quarters were repelled forwarded and up warded and the fetus was then pulled out manually by applying gentle traction on rear legs. Meanwhile the placenta was expelled within 30 minutes. The doe did not exhibit any secondary complications like uterine straining or prolapse after relieving dystocia. However the kid was died.

Treatment and Discussion

The dystocia relived goat was treated with Inj. Dextrose 25% 250 ml I/v, Inj. Ringer's lactate 250 ml I/v, Inj. Calcium Borogluconate @ 1ml/kg bwt I/v, Inj. Flunixin meglumine @ 2.2 mg/kg bwt I/m, Inj. Ceftiofur sodium @ 0.1mg/kg bwt I/v, Chlorphenamine

maleate @ 0.5 mg/kg bwt i/m, intrauterine dispensing of Furea (Pfizer India Ltd.) bolus 1 gm and antiseptic and antiinflammatory ointment was applied on the vulva to hasten the involution of uterus and control the infection. This was continued for 5 days. The animal was found to not respond well to the treatments and the animal died eventually.

The treatment procedure to relieve the dystocia is similarly reported by Ismail (2017) that manual traction of fetus through trans-vaginal due to mal presentation, disposition and posture in small ruminants. Per vaginal delivery can be attempted by repulsion, mutation and traction in complete cervical dilatation and normal size fetus carrying dam. If more than one fetus is presented in the birth canal, extract them one followed by other.

Dystocia or difficult kidding is an obstetrical emergency problem in goat which results in heavy economic losses to the goat farmers either through death of kids or does or severely affecting the reproductive performance or fertility of doe (Mcsporrán, 1980). Various factors influence the reproductive and productive performances of the goat which in turn decrease their numbers as the result from the death of the does and its kids. Dystocia is one such most important factors causes high economic losses (Abdul-Rahman *et al.*, 1999). Etiology for the dystocia is classified as either maternal or fetal in origin (Arthur *et al.*, 1996). Success rate of the treatment and management of dystocia depends upon correct diagnosis of the causes of dystocia, time when it was started, degree of dystocia, and knowledge on method of treatment and post operative care (Aziz and Taha, 1996). These treatment and management techniques such as manual correction like mutation, repulsion, expulsion and traction, hormonal treatment, fetotomy and caesarean section were attempted as per the degree of the dystocia (Taha *et al.*, 2005).

By proper management and treatment of pregnant goat, we can prevent or quickly treat dystocia to save the dam and its fetus live as well as to prevent economic losses. Timely and correct way of correction of dystocia cases can prevent dystocia and post partum related complications to improve further the chances of survival of dam and its fetus. Correct and quick management of

obstetrical problems like dystocia have not only saving the lives of dam and its offspring but also conserve the future breeding performances of the dam. Dystocia with one large size kid or two or three small kids, of which, one foetus with malpresentation, malposition, postural defects are normal problem in goat. However the present case report of dystocia due to one large fetus in breech presentation was unique case in Andaman local goat in Andaman and Nicobar Islands.

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