

Therapeutic With Obstetrical Management to Deliver Live Three Male Fetuses in Surti Doe

ABSTRACT

Dystocia is occurring occasionally in small ruminants like goat and sheep. A present case tentatively diagnosed as a fetal dystocia due to fetal dorso-pubic position and malpostures of fetus in seven year old surti doe based on the history, clinical signs and vaginal examination with incomplete cervical dilatation. The present case describes a successful delivery of three live male fetuses by obstetrical mutational approach following therapeutically intravenous administration of 20IU- Oxytocin, 30ml-calcium borogluconate and 500ml Normal saline, whereas 5ml valethamate bromide and antihistamine intramuscularly. Using various fluids, analgesic, antibiotic and intra-uterine passaries, resulted to normal health of affected Surti doe within few days.

Key Words: Dorso-pubic position, Postural abnormalities, Dystocia, Surti doe.

INTRODUCTION

Dystocia means difficult birth; the diagnosis and treatment of dystocia constitute a large and important part of the science of obstetrics, and require a good understanding of normal parturition (Arthur, 2001). Malpresentation is the common cause of dystocia with twin pregnancy (Noakes *et al.*, 2009). The incidence of dystocia varies between 8 to 50% in both sheep and goat and appears to be greater in dams carrying single male fetus (Purohit, 2006). Close examination of the fetus in the birth canal will readily reveal the cause for dystocia. Dystocia can be caused by either maternal or fetal problems. The majority of cases are reported by fetal problems, mainly malpresentation, abnormal position or posture of the fetus. The present case is a documentary record of fetal dystocia due to abnormal position (dorso-pubic) and posture (carpal & shoulder flexion) of fetus with incomplete cervical dilatation in a Surti doe and its successful management to relieve dystocia per-vaginally.

MATERIALS AND METHODS

Case History, Clinical observation and Pre-medicinal treatment

A seven year old Surti doe in its 5th parity was presented to the Animal Obstetrics unit of Dr. V. M. Jhala Clinical Complex with the history of complete gestation period, straining, restlessness and tenesmus since last one day and water bags which had ruptured before few hours. Physiological parameters recorded were in the normal clinical range; temperature, (103.9^oF) and respiration rate (42/minute) and while the heart rate was slightly elevated

Comment [km1]: This doe has already experienced dystocia in her four last parturition?

(79/minute/slight tachycardia). The **goat** was partial anorectic, dull, depressed and slightly dehydrated with standing condition. The doe was frequently getting up and down showing extreme abdominal pain.

Comment [km2]: doe or goat ?!



Fig 1: Pinkish Conjunctival mucus membranes



Fig 2: Mammary glands fully engorged with milk



Fig 3: Abnormal Dark Reddish colored discharged was observed

Clinical examination revealed pinkish conjunctival (Fig-1) and vaginal mucous membranes, mammary glands fully engorged with milk (Fig-2), tinged vulval lips with abnormal dark reddish colored discharge and also the dark reddish chocolate coloured discharge was observed on the floor (Fig-3). Abdominal ballotement & palpation revealed that the doughy freely moveable masses on the flank region suggested the presence of fetuses. On proper lubrication using liquid paraffin with antiseptic per-vaginal examination revealed that vagina was relaxed; cervix was four finger dilated, so it difficult reach up to the fetus & touch or palpated. So, decided to pre-medicated a doe (Fig-4) with intravenous administration of 3.0ml-Dexamethasone[®], 20IU-Oxytocin[®], 500ml-Normal saline, and 30ml-calcium borogluconate, whereas 5ml valethamate bromide (Epidosin[®]) was given intramuscularly. On Completion of pre-medicinal treatment after three hours, per-vaginal examination (Fig-5) with proper lubrication using liquid paraffin and antiseptic revealed that cervix was fully dilated & relaxed, a live fetus palpated with anterior-longitudinal presentation, dorso-pubic position and bilateral flexion of carpal & shoulder joints lying beneath the body of fetus. Forehead of fetus was palpable at pelvic brim, but the fetal abdomen was found greatly distended above the brim and tense with lot of fluid. Based on the history, a clinical signs and per-vaginal examination the present case was diagnosed as a fetal dystocia due to fetal dorso-pubic position with malpostures and incomplete cervical dilatation.

Comment [km3]: I suggest 'and' in text

Comment [km4]: I suggest 'and' in text

Comment [km5]: I suggest 'and' in text

Comment [km6]: I suggest 'and' in text



Fig 4: Doe was pre-medicated



Fig 5: Specific antiseptics per-vaginal examination

OBSTETRICAL AND THERAPEUTIC MANAGEMENT

Following confirmatory diagnosis of fetal dystocia due to fetal malposition and malpostures and the careful repelling of the foetus into abdominal cavity of doe, attempts were made per-vaginally by forced extraction to delivered or withdrawal fetus with proper lubrication of the birth canal using liquid paraffin and rinsing the perianal region with the 1 % potassium permanganate lotion, which result into delivery of first live male fetus(Fig-6)and subsequently, the two another live male fetuses of similar size were also delivered by grasping tiny fore limbs and manually applying forced extraction on the fetus in same manner.

Then the goat was post-medicated (Fig-7)intramuscularly by administrationof 3ml-Chlorpheniramine maleate[®] (Antihistamines), 5ml-Vitamin B-complex Injection, Melonex[®] (Meloxicam-Intas, India) @ 0.5mg/kg. b.wt. IM OD and Quintas[®] (Enrofloxacin-Intas, India) @ 5mg/kg. B.wt. IM OD; whereas 500ml Dextrose normal saline was given intravenously with placement of two Furea bolus (control the uterine infection- Allopathic remedies, India) in the uterus. The Liquid Exapar[®] (Indigenous herbal uterine cleanser and restorative-Natural Remedies, India)@ 20 ml twice PO and liquid Gluca-boost (To maintain the energy/glucose-Natural Remedies, India)@30ml twice PO.Antibiotic, analgesic andantihistamine intramuscularly treatment was continued for 5 days.

Comment [km7]: doe or goat?!



Fig 6:Delivered first male fetus (Anterior presentation with dorso-pubic position)



Fig 7:Doe was post-medicated

RESULTS AND DISCUSSION

Information of the patient was taken telephonically every alternate day following discharge from hospital. The goat was found active and alert resuming normal appetite within a six days post treatment and recovered uneventfully. In this present case successfully three live male fetuses (Fig-8) delivered by correct position & postures of fetus with manually applying mutational approach and forced extraction. In this clinical case, the fetal abnormal posture characterized by bilateral carpal and shoulder flexion, was the cause of dystocia where both of the forelimbs were flexed at the knee joint region and shoulder joint. In ruminants, males fetuses are more frequently associated with dystocia as than female fetuses and male carries one day longer than female one (Arthur *et al.*, 1989). Which involved a male or a female live or dead fetuses respectively, with forelimbs carpal and shoulder flexion (Bhoi, *et al.*, 2010). This is the most common and easily corrected dystocia (Majeed *et al.*, 1993). There are a few obstetrical procedures that can be done to remove the fetus (Majeed and Taha, 1995); these procedures include (1) mutation to correct abnormal presentation, position and posture of fetus by manipulation, (2) traction where application of outside force used to assist dam to expel fetus, The main reason for not delivered of live fetus in the present case was due to incomplete cervical dilatation, uterine inertia and fetal abnormal posture. In short, this case report described the successful management of fetal dystocia in a doeing pre-medicinal treatment combined with obstetrical mutational approach.

Comment [km8]: doe or goat ?!

Comment [km9]: were delivered

Comment [km10]: Its will be good to give the informations about the three live males fetuses within the first days after delivration. Thus, the methodology will be completively appreciate !



Fig 8:Delivered three live male fetuses from Doe

CONCLUSION

This case concluded that, by determining the factors rapidly, the occurrence of fetal dystocia can be managed by judicious diagnosis and timely interventions. Which can save the lives of the dam as well as the fetus and prevent economic losses. In this case, the prognosis of the doe was good with further breeding.

REFERENCES

- Arthur, G. H. (2001). *Veterinary Reproduction and Obstetrics, 8th Edition, Williams Wilkins Co., Baltimore, M.d.*
- Arthur, G. H.; Noakes, D. E. and Pearson, H. (1989). *Veterinary Reproduction and obstetrics. 6th edn. ELBS, Bailliere Tindall, London, UK. 175p.*
- Bhoi D.B.; Suthar D. N.; Parmar J, J. and Patel J. B. (2010). Dystocia in mare due to fetal postural defect. *Veterinary World*, **3** (7): 332.
- Majeed, A. F. and Taha, M. B. (1995). Obstetrical disorder and their treatment in Iraqi Awassi ewes. *Small Ruminant Research*, **17**: 65-69.
- Majeed, A. F.; Taha, M. B. and Azawi, O. I. (1993). Cesarean section in Iraqi Awassi ewes: A case study. *Theriogenology*, **40**: 435-439.
- Noakes, D.E. Parkinson, T. J.; England, G. C. W. (2009). *Arthurs' Veterinary reproduction and obstetrics, 9th edition, DE Noakes, TJ Parkinson, GCW England (eds), Saunders, Edinburg, London.*
- Purohit, G.N. (2006). Dystocia in sheep and goats-a review. *Indian Journal of Small Ruminants*, **12**(1) 1-12.

Comment [km11]: Please give number pages of this book?!

Comment [km12]: Please give number pages of this book!

UNDER PEER REVIEW

