

## Case Report

# Partial Per-Cutaneous Fetotomy and Per-Vaginal Delivery of Emphysematous Foetus in a Sheep

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### ABSTRACT

The present communication describes partial percutaneous fetotomy and per-vaginal delivery of emphysematous fetus in non-descript biparous ewe due to delayed approach to veterinarian by owner. It was successfully relieved by fetotomy and obstetrical mutational operations followed by clinical management of the animal.

**Keywords:** Dystocia, emphysema, percutaneous, fetotomy, management

Dystocia or difficult birth is one of the major contributory factors in economic losses from perinatal deaths of dam and fetuses (Brounts *et al.* 2004). Fetal maldisposition is one of the major causes of dystocia in sheep (Thomas, 1990) accounting for more than half of the dystocia cases. The incidence of postural abnormalities has been reported between 63 to 69 % in sheep and goat (Sharma *et al.* 1999; Purohit *et al.* 2006). The present case study reports dystocia in ewe due to fetal malposture and successful per-delivery of emphysematous fetus and management of the ewe.

A full term biparous ewe was presented to Veterinary Clinical Complex (VCC), Mamnoon C.V.Sc., Warangal with a history of straining since 18-24 hours approximately. Clinical examination revealed fetal limb hanging from vagina and ewe showed signs of straining. Per-vaginal examination revealed complete cervical dilation and the fetus was in anterior longitudinal presentation, dorso-sacral position with fetal head and right forelimb extending into the birth canal and shoulder flexion of the left forelimb. Fetal size was enlarged and crepitations were evident along with putrid vaginal discharge indicating "fetal emphysema".

Caudal epidural anaesthesia was induced using Inj. Lignocaine hydrochloride (2%, 2 ml) into sacro-coccygeal space. The cervix was dilated using fingers and liquid paraffin was used to lubricate birth canal. To create space in birth canal and to manipulate dead fetus inside with ease, the hanging limb was cut at shoulder joint by performing partial percutaneous foetotomy. Thereon, William's long obstetrical hook was applied on fetal thorax and fetus was brought forward into the birth canal. Simultaneous traction of fetal head and thorax relieved dead emphysematous fetus (Fig. 1).

Intravenous fluid therapy (Inj. 5% DNS - 250 ml I/V), Antibiotic therapy (Inj. Enrofloxacin -125 mg, I/V) and Anti-inflammatory therapy (Inj. Meloxicam - 10 mg I/V) along with supportive therapy (Calcium and phosphorus supplementation) was administered to combat secondary bacterial infection. Inj. Tranexamic acid - 20 mg, I/V, was administered to control per-vaginal bleeding.

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Intrauterine administration of Furea bolus was done to evacuate remnant placenta.



**Fig. 1:** Emphysematous fetus relieved in a biparous ewe after percutaneous fetotomy of right forelimb

Fetal emphysema should always be suspected in prolonged cases of dystocia exceeding over 24 hours (Velladurai & Alagar, 2017). After such prolonged cases, abdominal contractions are weak and intermittent for a few hours and then cease completely (Phogat *et al.* 1993). Especially, in neglected cases associated with secondary uterine inertia, loss of fetal fluids and a dead, emphysematous fetus which is tightly enclosed by the uterus, very serious dystocia may occur, for which fetotomy or a caesarean operation may be required (Arthur *et al.* 2001a). In general, emphysematous fetuses are subjected to more risky caesarean section which is uneconomical (Anusha *et al.* 2016) and may not be affordable by poor farmer (Dalal *et al.* 2017). Moreover, by C-section the fetus simply cannot be removed from the uterus because it is impossible to make a uterine incision of adequate length for relieving enlarged emphysematous fetus (Arthur *et al.* 2001b). So, percutaneous fetotomy of the right forelimb was performed upto the level of shoulder joint to create space in the birth canal and for applying traction on the enlarged fetal head and thorax by William's long, obstetrical hook along with contralateral fetal forelimb simultaneously. Thus in the present case, successful per vaginal delivery has been performed by partial percutaneous fetotomy and traction of the fetus.

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