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## Successful management of fetal maceration in a doe: A case report

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#### Abstract

A 4-years old doe at full term pregnancy was presented at Veterinary hospital, Bhind, M.P with the history of reddish brown coloured foul smelling discharge from vagina along with abdominal straining for the last 3 days. After complete clinical examination, the case was diagnosed as fetal maceration. Manual removal of macerated fetus was done per-vaginally through dilated birth canal. The animal recovered uneventfully after giving supportive therapy for five consecutive days.

**Keywords:** Doe, fetal maceration, putrefaction, per-vaginal removal, laparohysterotomy

#### Introduction

Fetal emphysema and maceration most commonly follows fetal death after the development of fetal bones in which cervix is completely or partially dilated but fetus is not expelled and ascending infections cause putrefaction and dissolution of soft fetal tissues<sup>[1]</sup>. This condition is more common in cattle and buffaloes<sup>[2]</sup> than mare<sup>[3]</sup> or small ruminants<sup>[4, 5]</sup>. The reason for the non-delivery of a dead fetus could be a partially dilated cervix, uterine inertia, or the abnormal presentation of a fairly dry fetus which causes it to be retained in the uterus<sup>[6]</sup>. The management of macerated fetus includes manual removal of fetal bones per vagina through a dilated cervix<sup>[7, 2]</sup>. Laparohysterotomy for removal of the macerated fetus is potentially dangerous and hence, should be performed only when other remedies are failed<sup>[8]</sup> because of poor prognosis with least chance of future pregnancy<sup>[9]</sup>.

#### Case History and Clinical observation

A 4-years old goat of around 30 kg having history of full term pregnancy was presented at Veterinary hospital, Bhind, M.P with complaint of reddish brown coloured foul smelling discharge from vagina and abdominal straining for the last 3 days. All physiological parameters were found as within the normal ranges except temperature which was recorded as 104.8 °F. On per vaginal examination revealed the dilated birth canal, when proceed in to the uterus the small sized scattered bones of macerated fetus were felt. On the basis of per vaginal examination, and history, the case was diagnosed as fetal maceration.

#### Treatment and Management

After proper lubrication of birth canal with liquid paraffin, pieces of macerated fetal bones were removed per-vaginally with manual assistance, until the last piece of bones felt (Fig 1). Then, fluid therapy was instituted i.e. Normal saline (NS) - 500 mL IV followed by RL-500 mL IV. Enrofloxacin (Quintas<sup>®</sup>- Intas, India) - 5 mg/kg b.wt. IM *sid* for 5 days; non-steroidal anti-inflammatory drug Meloxicam (Melonex<sup>®</sup>- Intas, India) - 0.5 mg/kg b.wt. IM *sid* for 5 days; Pheniramine Maleate (Avil<sup>®</sup>- Intervet India Pvt Ltd, India) – 3 mL IM *sid* for 5 days; oral herbal uterine cleanser Uterotone<sup>®</sup> (Cattle remedies- India) - 50 ml P.O. *bid* for 5 days and Tetracycline (Steclin<sup>®</sup> 1 g bolus; Sarabhai Zydus Animal Health Limited, India) – 2 boli, intrauterine *sid* three times on consecutive days were prescribed.

#### Discussion

Fetal maceration could occur at any stage of gestation, but most commonly during mid to late gestation<sup>[9]</sup>. The condition most commonly seen in large ruminants but, in small ruminants it is rare. Macerated fetal parts were removed manually per vaginally through a dilated cervix in the presented case, has also been reported by<sup>[7, 2]</sup>.

If the disintegrated fetal parts and bones retained in the uterus for prolonged period then, emergency surgical intervention could be needed to save life of the animal [6, 8]. In the present case, all the fetal bones were removed and animal was kept on fluid therapy along with antibiotics and anti-inflammatory drugs which led the animal to recover uneventfully.



**Fig 1:** Macerated foetal bones along with doe

### Conclusion

Manual removal of fetal parts is a promising technique in cases of fetal maceration in small ruminants when cases are presented and diagnosed early.

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