

SUCCESSFUL PERVAGINAL DELIVERY OF MACERATED FETUS IN A GOAT

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Abstract: A 4-year-old pluriparous goat was presented with the history of blood mixed vaginal discharge in the past 4 days. On obstetrical examination, cervix was dilated and pieces of fetal bony parts along with remnants of fetal skin were palpated in the vaginal passage as well in the uterus. Fetal bones were removed per-vaginally after proper lubrication with liquid paraffin and the goat was recovered uneventfully.

Keywords: Goat, Maceration, Vaginal discharge, Per vaginal delivery, Fetal bones.

INTRODUCTION

The fetus was to be died in-utero and failed to expel from the uterus and retained which predisposed to putrefaction and autolysis of fetal tissues and placenta leaving bony structures that remain floating in the uterine horns (Noakes *et al.*, 2009). Fetal maceration has been reported in almost all the domestic animals but rare in goat. Maceration is a common sequel of fetal mummification and occurs in the event of fetal death after formation of fetal bones, it would be after 100 days of gestation in sheep and goat (Bashiru *et al.*, 2020). Etiology of the fetal maceration could not be predicted because complete autolytic changes occur in the fetal tissues. Treatment considered to be manual removal of bony pieces through pervaginum, C-section (Rautela *et al.*, 2016). The present case documented the fetal maceration in a goat.

CASE HISTORY AND CLINICAL OBSERVATION

A 4 year old full term pluriparous goat weighing 25 Kg was presented to Obstetrical section, Veterinary Clinical Complex, Veterinary College and Research Institute, Salem with the history of bloody vaginal discharge for past 4 days. On physical examination animal appeared dull, depressed, dehydrated and continuous straining was observed. On clinical examination revealed congested conjunctival mucous membrane and other vital parameters were within the normal reference range. Per-vaginal examination revealed that there was foul smelling reddish

grey colour discharge coming out from external genitalia. On detailed obstetrical examination, cervix was dilated and pieces of fetal bony parts and fetal skin were palpated in the vaginal passage as well in the uterus. Hence, the case was diagnosed as foul-smelling discharge is due to fetal maceration.

TREATMENT AND DISCUSSION

The birth canal thoroughly lubricated with liquid paraffin by using 60 ml syringe. After proper lubrication, the fetal bony parts of the fetus were cautiously removed manually (Figure 1,2 and 3). Douching of uterus was performed using 4 ml of povidone iodine in 30 ml of metronidazole. Post obstetrical radiograph examination showed absence of remnants of fetal structures within the uterus. The doe was administered with Inj. dextrose (200 ml, i/v), ceftriaxone-tazobactam (15 mg/kg, i/v), pheniramine maleate (0.2 mg/kg, i/m). Additionally, single dose of cloprostenol sodium (Clolife, 250µg, i/m) administered for the expulsion of uterine contents. Advised to continue the antibiotic coverage, anti-histaminic and douching for five more days. Goat recovered uneventfully on follow-up treatment.

Fetal maceration develops as sequelae to abortion or mummification due to incompletely dilated cervix. Fetal bones were fairly well developed after 3 months of gestation, particularly in small ruminants (Bashiru *et al.*, 2020). The reported case was brought to the referral centre with the history of full-term gestation. Purohit and Gaur (2011) opined that maceration of the fetus occurs after fetal emphysema following fetal death, because of failure of dilation of cervix the fetal might retained in the uterine horn. The present case also agrees with the statement. The reason for the fetal death was to be difficult to be predict. In rare instances, fetal death might be associated with uterine torsion, road traffic accident, fight with herd mates during pregnancy (Chakraborty *et al.*, 2018) and iatrogenic uterine perforation (Bashiru *et al.*, 2020). In the present report no history of accident and uterine torsion, however animal appeared dull, depressed, severe dehydration at the time of presentation. Administration of prostaglandins for complete luteolysis and subsequent dilatation of cervix, removal of fetal bones by forceps in incompletely dilated cervix (Prabaharan *et al.*, 2022), C-section (Chakraborty *et al.*, 2018) considered to be the treatment of choice. Interestingly, completely embedded fetal bones in the uterine horns removed by unilateral uterine horn amputation during c-section (Thangamani *et al.*, 2025). In the present case, fetal bones and skin were successfully removed per-vaginally after proper lubrication with liquid paraffin.

CONCLUSION: The present case was recorded fetal maceration in a goat. Fetal bones and skin were removed per-vaginally after proper lubrication with liquid paraffin.

		
Figure 1: Pervaginal examination of goat	Figure 2: Removal of fetal bones with putrefied skin	Figure 3: Macerated fetal bones

References

- [1] Bashiru, G., Nura, A., Abubakar, B.H., Ekaete, O.I., Salisu, A.U. and Rambo, G.U. (2020). Iatrogenic uterine perforation resulting in fetal maceration in an ewe. *Research Journal for Veterinary Practitioners*. 8(2):15-19.
- [2] Chakraborty, D., Ahmed, N., Nath, A.K., Warson Monsang, S., Lalzawmliana, V. and Barman, P. (2018). Surgical management of fetal maceration in a doe carrying live twin: a rare case report. *International Journal of Pure Applied Bioscience*. 6(5):139-141.
- [3] Noakes, D.E., Parkinson, T.J., England, G.C.W., and Arthur, G.H. Infertility and subfertility in the ewe and doe (female goat) in: *Veterinary Reproduction and Obstetrics*. 9th ed, Elsevier Sci Ltd; 2009.
- [4] Prabakaran V, Thangamani A, Chhavi Gupta and Sabarinathan A. (2022). Successful obstetrical management of fetal maceration in a non-descript doe: a case report. *The Pharma Innovation Journal*, 11(12): 5030-5031
- [5] Purohit, G.N. and Gaur M. (2011). Etiology, antenatal diagnosis and therapy of fetal complications of gestation in large and small domestic ruminants. *Theriogenology Insight*. 1:43- 62.
- [6] Rautela, R., Yadav, D.K., Rahul, K., Singh, S.K., Das, G.K. and Harendra Kumar. (2016). Fetal maceration in goat: a case report. *International Journal of Science, Environment and Technology*. 5(4):2323-2326.
- [7] Thangamani A, Manokaran S, Sarath T, Reshma A, Rajkumar R and Elango A. (2025). Amputation of uterine horn due to delayed case of fetal maceration in a non-descript goat. *Indian Journal of Veterinary and Animal Sciences Research*, 54(1), 115-118.