Case Report

AMPUTATION OF UTERINE HORN DUE TO DELAYED CASE OF FETAL MACERATION IN A NON-DESCRIPT GOAT

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ABSTRACT

A non-descript doe was diagnosed for fetal maceration. Incompletely dilated cervix hindered manual removal of fetal bones per vaginum. Hence C-section was performed. Since fetal bones were severely embedded to the endometrium, the uterine horn embedded with the fetal bones was amputated. The doe recovered uneventfully after follow-up treatment.

Key words: Amputation of uterine horn, C-section, Cloprostenol sodium, Maceration, Goat

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INTRODUCTION

Fetal maceration has been reported in almost all the domestic animals but rare in goat (Prabaharan *et al.,* 2022). Maceration is a common sequela of fetal death after formation of fetal bones which occurs after 100 days of gestation in sheep and goat (Bashiru *et al.,* 2020). Treatment could be approached by manual removal of bony pieces pervaginum or C-section (Rautela *et al.,* 2016). However the present case documented a novel approach of unilateral uterine horn amputation due to complications of maceration in a goat.

CASE HISTORY AND CLINICAL OBSERVATION

A full term non-descript doe (4 years; 22kg) was presented to obstetrical unit with the history of foul smelling sero-purulent vaginal discharge for the past 10 days. On physical examination animal appeared dull, depressed, dehydrated and was straining continuously. General clinical examination revealed congested conjunctival mucous

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membrane and elevated temperature (39.9° C). The doe was stabilized with inj: dextrose normal saline 150 ml (i.v), inj: dexamethasone (0.2 mg/kg b.wt, i.m), inj: ampicillin and cloxacillin (15 mg/kg b.wt, i.v). After stabilization, the perineum was cleaned with 0.1% potassium permanganate solution. Vaginal examination revealed foul smelling blood mixed purulent discharge and one finger dilatation of cervix. On detailed obstetrical examination, pieces of fetal parts (bones) were palpated in the vaginal passage as well as inside the uterus through incompletely dilated cervix. Hence, the case was diagnosed as delayed case of fetal maceration.

TREATMENT AND DISCUSSION

Removal of bony pieces from the inside of uterus was felt very difficult due to incompletely dilated cervix and hence C-section was preferred. Left lower flank was prepared aseptically and linear infiltration of local analgesia (2% lignocaine 10 ml and 10 ml of normal saline) given. On approaching the uterus it was found that fetal bones were tightly adhering to the uterine horn (Right horn) with bony prominences nearly piercing the uterine horn (Fig 1). On incision of uterine horn fetal bones were found to be severely embedded to the endometrium and difficult to remove the bone completely (Fig 2). Hence amputation of that uterine horn was performed by applying of artery forceps on the base of the uterine horn and ligated using PGA-0, carefully removed by BP blade (Fig 3). Bones which were present in the contra-lateral uterine horn were removed. The uterus was completely flushed with normal saline solution and metronidazole. Amputated portion of the uterine horn was sutured. The laparotomy incision was closed as per standard protocol (Fig 4). Parenteral antibiotic (ampicillin and cloxacillin), antihistaminic (Chlorpheniramine maleate) and NSAID (Meloxicam) were continued for five consecutive days and suture was removed on 15th day. The doe recovered uneventfully.

Fetal maceration occurs due to fetal death and decomposition in utero, resulting in retention of the fetal skeleton within the reproductive tract (Noakes *et al.,* 2019). Fetal death might be associated with uterine torsion (Roberts, 2004), trauma (Chakraborty *et al.,* 2018) and iatrogenic uterine perforation (Bashiru *et al.,* 2020). However, the cause of fetal death in the present case could not be ruled out. Various approaches like 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) and C-section (Chakraborty *et al.,* 2018) were reported. C-section for removal of the macerated fetus is potentially dangerous and considered as a last resort (Honparkhe *et al.,* 2008).

In the present case, left lower flank oblique approach of C-section was preferred inorder to avoid contamination through spilage of septic contents into abdominal cavity as reported by (Dutt *et al.,* 2018). Since the fetal bones were severely embedded with the endometrium, complete removal of bones was not possible in the

case. The tight entangling of bones would have occurred due to delay in presentation of case. Hence amputation of one uterine horn which completely embedded with fetal bones was warranted. As per the literature reviewed amputation of uterine horn was not performed in domestic animals in the case of fetal maceration, The present case placed record on successful surgical management of delayed case of fetal maceration by unilateral uterine horn amputation. In the present case the doe recovered uneventfully without further complications which might be due to the cautious removal of the fetal bone pieces, unilateral uterine horn amputation and intra-uterine douching.

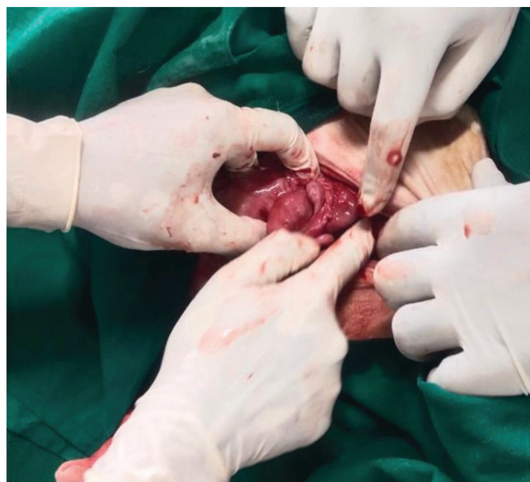

Fig 1: Exposure of uterine horn

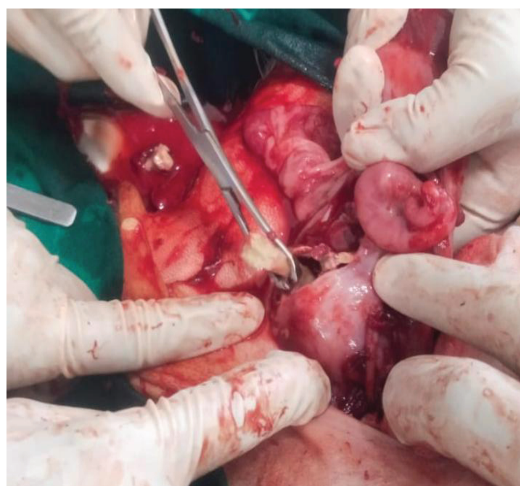

Fig 2: Removal of bones from uterine horns

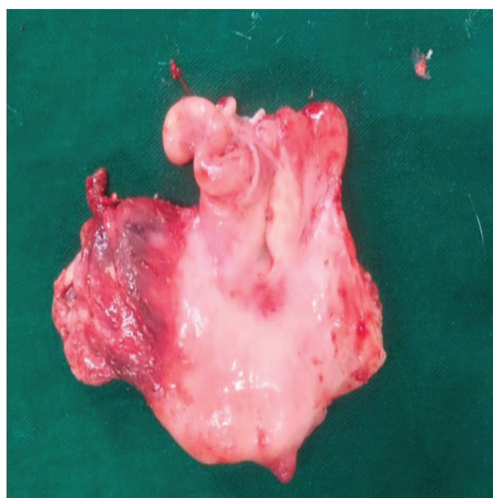

Fig 3: Amputated portion of uterine horn

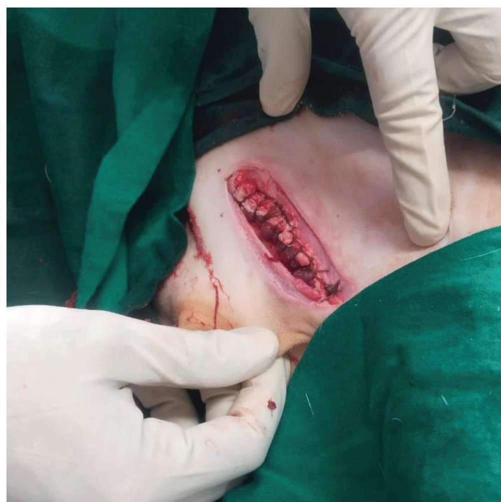

Fig 4: Closure of abdominal muscles

CONCLUSION

The present case placed record on successful surgical management of delayed case of fetal maceration by novel approach of unilateral uterine horn amputation in goat

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