



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.03

TPI 2020; SP-9(4): 47-48

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Received: 07-02-2020

Accepted: 10-03-2020

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## Postpartum Cervico-vaginal prolapse and its clinical management in a sow: A case report

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DOI: <https://doi.org/10.22271/tpi.2020.v9.i4Sb.4701>

### Abstract

A case of cervico-vaginal prolapse in a two and a half year old sow in her third parity was attended. The sow had farrowed 14 piglets and placentas were expelled normally. Thereafter, cervix and vagina had prolapsed. The case was treated with epidural anaesthesia, antihistaminic, analgesic, antibiotic, calcium-magnesium borogluconate and oxytocin parentally. The prolapsed mass was repositioned and retained successfully by quill sutures. The sow recovered uneventfully.

**Keywords:** Cervico-vaginal prolapse, management, sow

### Introduction

Genital prolapse is an important disorder in breeding animals. Prolapse of uterus, cervix, vagina and combination of all these are observed in late gestation or immediately after parturition in every animal species. Uterine prolapse is a common complication of third stage of labour in cow and ewe; less commonly observed in doe and least in sow, mare, and bitch (Noakes *et al.*, 2001) [6]. The severity of condition varies with the part of organ prolapsed, time elapsed, condition of tissue involved and clinical status of animal (Jahangir *et al.* 2014) [2]. The predisposing factors reported to cause prolapse are hormonal imbalance, hypocalcaemia, confinement for longer periods, relaxation of ligaments and mechanical factors such as increasing intra-abdominal pressure in late gestation. Prolapse of genitalia is highly prone to mechanical injury and profuse haemorrhage requiring immediate attention, prompt and efficient management and proper treatment to overcome the complication and ensuring productive and reproductive performance of animals in future.

The present case deals with cervico-vaginal prolapse in a crossbred sow immediately after farrowing and its successful management with surgical intervention.

### History and observations

A two and a half year old crossbred sow in her third parity was presented to the Veterinary Clinical Complex, College of Veterinary Sciences and Animal Husbandry, Central Agricultural University, Jalukie, Nagaland with eversion of both cervix and vagina after delivery of fourteen piglets and placentas with no history of prolapse during previous two farrowings. The piglets were all healthy except for last two piglets born dead. As per the history, farrowing time elapsed for more than eight hours. There was no known history of infection and injury during pregnancy.

The sow when attended was very active with intermittent straining. Examination of prolapsed mass revealed cervix and vagina everted through vulva (Fig. 1) without any laceration and bleeding but oedematous. On clinical examination, it had normal rectal temperature but elevated respiratory rate and pulse rate. Teats (7 pairs) were engorged and milk oozed out while stripping. Urinary bladder was not distended; the prolapsed mass could be repositioned easily, however, it was expelled within a few seconds although there was no apparent forceful straining.

### Clinical management

Initially, lignocaine hydrochloride (2%) was administered at the rate of 5 ml epidurally at lumbo-sacral space. The animal was restrained in right lateral recumbency and hind quarter

was elevated. The prolapsed mass and perineal region were cleaned thoroughly with 1:1000 potassium permanganate solution. The prolapsed mass was smeared with providone iodine solution and finally lubricated with non-irritant lubricant *viz.*, carboxymethylcellulose sodium salt (Himedia Laboratories Pvt. Ltd.). Then it was repositioned by pushing gently through vulva with the help of a gloved hand fist. A quill (Fig. 2) suture around the vulvar hairline was applied leaving two finger open space towards ventral commissure for smooth urination and passage of lochia. Black braided silk was used for the suture. Instead of quill, two pieces of clean intravenous saline tubes were used on either side of the vulva. A course of antibiotics (Flobac SA @ 5 mg/kg b.wt i/m ly × 6 days), antihistaminics (Anistamin @ 5 ml i/m ly × 3 days), analgesic (Melonex @ 0.3 mg/kg b.wt. i/m ly × 3 days), calcium-magnesium borogluconate (Mifical @ 100 ml i/v ly) and oxytocin (Syntocinon @ 15 IU i/v ly) were administered. Owner was also advised to apply Himax ointment on suture bite externally daily for five days. On day six, sutures were removed. The sow made an uneventful recovery.



**Fig 1:** Severely swollen and congested cervico-vaginal mass



**Fig 2:** Application of quill suture for retention of the prolapse mass

### Discussion

Postpartum prolapse of uterus, cervix, vagina or combination of all is an emergency, needs prompt treatment which otherwise may lead to sever lacerations and profuse haemorrhage and interference to blood supply to the prolapsed tissue may eventually result in gangrene of the prolapsed genitalia (Joseph *et al.*, 2001) [3]. An effectively treated animal has a potential to return to the herd and maintain a normal reproductive existence (Simon *et al.*, 2014) [7]. The goal of treatment of genital prolapse is to fulfil three “R” *viz.*, reduction, reposition and retention of the prolapsed mass in its own place. Immediately after eversion, the tissue mass

undergoes inflammatory reaction. The prolapsed tissue becomes extensively oedematous due to more blood circulation and intracellular accumulation of fluid. Swelling of the prolapsed tissue and distended urinary bladder often creates problem in repositioning the mass. Mishra *et al.* (1997) [5] recorded 55.56% of uterine prolapse in buffaloes with distension of urinary bladder due to retention of urine. However, in the present case the prolapsed part could be repositioned easily with gentle pressure as urinary bladder was not distended.

Epidural anaesthesia is very important before reposition of prolapsed tissue as it minimizes straining and desensitizes the perineum (Hanie, 2006) [1]. Handling of the prolapsed tissue invariably leads to tenesmus. Epidural anaesthesia can effectively be used not only to develop analgesia but also to control tenesmus (Lee *et al.*, 2003) [4]. Intravenous administration of calcium-magnesium borogluconate and oxytocin causes muscular tonicity and contraction of smooth uterine musculature which helps in retentioning its normal position and corrects uterine inertia, respectively. Parental administration of antibiotic helps to control secondary bacterial infection and to establish uterine hygiene. Analgesic and antihistaminic were administered to reduce pain and irritation.

The prognosis of the prolapse case depends on degree or intensity of the prolapse, time elapsed and tissue or organ involved. The usual sequel of genital prolapse is haemorrhage, shock, septic metritis, peritonitis, infertility or death. Hence, immediate and accurate clinical intervention is of prime requisite for a favourable prognosis with regards to fertility of sow.

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