Unusual occurrence of invaginated uterine prolapse in a graded murrah buffalo

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Abstract
A 3 year old graded Murrah buffalo on its first post-partum was presented with the history of continuous abdominal straining and uterine prolapse. The condition called invaginated uterine prolapse was confirmed after the detailed examination. Prolapsed invaginated uterine mass was corrected and repositioned under the epidural anesthesia.

Keywords: Invaginated uterine prolapse, graded murrah buffalo

Introduction
Invagination of uterine horn occasionally reported in cow and mare, very rare in other species. In bovines the ovarian pole of the gravid horn usually involved and invagination completely occurred within the uterus as like intestinal intussusception (Robert, 1971) [5]. The most common clinical signs in uterine intussusception affected animals are unproductive contractions and abdominal discomfort. This is a rare condition and its predisposing factors are still unknown (Da Silva et al., 2020) [1]. Incidences of total uterine prolapse was reported by Selvaraju et al. (2010a) [6] in goat, Periyannan et al. (2021) [3] in sow, Prakash et al. (2016) [4] in cow and Selvaraju et al. (2010b) [7] in buffalo. The review of previous publications revealed that invaginated uterine prolapse is very rare. The present article explains obstetrical management of invaginated uterine prolapse in a buffalo.

Case history
A primiparous graded Murrah heifer weighing 410 kg was referred to the obstetrics unit of VCC, VCRI Namakkal. The history revealed that the buffalo was treated for dystocia by forced extraction two days back by a field veterinarian. Later the animal had continuous straining with exposure of uterine mass through the vulva. On clinical examination, the animal was in standing posture and all presenting vital parameters were within the physiological reference values for the species. However, unproductive continuous abdominal contraction was noticed and because of that invaginated uterine mass protrudes through vulva. Based on the clinical observation the case was diagnosed as invaginated uterine prolapse (Fig.1).

Treatment
Animal was restrained in hind quarter elevator with epidural anaesthesia (2% Lignocaine, 5 ml). Prolapsed invaginated mass was washed with 1:1000 KMnO₄ solution and urinary bladder was emptied by using urinary catheter. After lubrication with cetrimide cream, invaginated portion of uterine horn was replaced and repositioning of the uterine mass was done. Perineal region was cleaned with 2% KMnO₄ solution and modified vulval retention suture was applied for avoiding the recurrence (Fig. 2). The animal clinically was treated with Inj. calcium borogluconate 450 ml and Inj. Ceftriaxone 6 gm by intravenous route. Inj. Flunixin 500 mg, Inj. Chlorpheniramine Maleate 120 mg, inj. Dicyclomine 200 mg and Inj. Oxytocin 40 IU was administered intramuscularly. Antibiotic, anti-inflammatory, antispasmodic, antihistamine and intrauterine bolus was continued for four more days and animal recovered uneventfully without any complications.

Discussion
In mild case of invaginated uterine prolapse the spontaneous recovery may occur and in advanced condition metritis following septicaemia leads to death.
Generally, prognosis of uterine invagination usually good if treated earlier and replacement of uterine mass was not possible with tight contraction of uterine muscle over the invagination (Robert, 1971) [5]. Condition called Intussusception or invagination is a generally noticed in intestinal organs and it may cause necrosis of the affected tissue due to arterial occlusion (Da Silva et al., 2020) [1]. Pervaginal reposition and successful management of uterine invagination reported in a cow by Prabaharan et al. (2009) [2] and Da Silva et al. (2020) [1] reported in dog. In this present case the invaginated uterine mass was corrected and reduced easily with help of epidural anesthesia without damaging the birth canal. By using of antispasmodic drug (Dicyclomine) further incidence of uterine invagination was prevented. Postpartum total uterine prolapse frequently reported in buffalo immediately after the fetal delivery (Prakash et al., 2016) [4] and its occurrence 48 to 72 hours after the fetal delivery is rare (Periyannan et al., 2021) [3]. Occurrence of invaginated uterine prolapse two days after fetal delivery is unique one.

References