DYSTOCIA DUE TO VENTRAL ABDOMINAL HERNIA WITH HYSTEROCOELE IN A CROSSBRED COW AND ITS MANAGEMENT

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ABSTRACT

A full term pregnant pluriparous Jersey crossbred cow was presented with the history of difficulty in parturition, bloody vaginal discharge and straining with distended left ventral abdominal wall and the cow was recumbent. Based on the clinical examination, the case was diagnosed as dystocia due to ventral abdominal hernia with hysterocoele and its successful per-vaginal delivery was reported in this communication.

Key words: Cow, Dystocia, Abdominal Hernia, Hysterocoele.

Hernia is an abnormal protrusion of an organ or tissue through an opening which may be natural or acquired. In animals, ventral hernia occurs mainly due to any trauma such as a kick, blow, horn thrust or falling on blunt objects and rupture of pre pubic tendon (Frank, 1981). Ventral abdominal hernias are generally observed in pluriparous ruminants in advanced pregnancy with multiple foetuses which leads to fragility of abdominal muscles or pre-pubic tendon (Vijayanand *et al.,* 2009). Spontaneous or traumatic injuries can result in hernia thereby causing displacement of the gravid uterus into the hernia (Purohit, 2006). In the present communication, a case of dystocia due to ventral abdominal hernia with hysterocoele in a Jersey crossbred cow and its successful per-vaginal delivery is reported.

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Fig. 1: Cow with ventral abdominal hernia

Fig. 2: Normal dead male foetus delivered per-vaginally

A five-year old full term pregnant pluriparous Jersey crossbred cow in her third parity was presented to the Large Animal Obstetrics Unit, Madras Veterinary College Teaching Hospital with the history of difficulty in parturition, bloody vaginal discharge, ruptured water bag and straining for the past six hours with sternal recumbency. Clinical examination revealed fluctuating swelling with palpable foetal parts on the ventral abdominal region towards the left side, parallel to the udder (Fig. 1). On per vaginal examination, the cervix was fully dilated and fetus was at anterior longitudinal presentation (P1); dorso-sacral position (P2); extended forelimbs and right lateral deviation of head (P3). Based on the clinical examination, the case was diagnosed as dystocia due to ventral abdominal hernia with hysterocoele.

Under epidural anaesthesia with 2% lignocaine and sufficient lubrication, the dead male foetus was removed with forced traction per-vaginally (Fig. 2). Further, the cow was treated with 250 ml of Inj. Calcium Borogluconate slow I/V, 50 IU of Inj. Oxytocin I/M on day 1 and Inj. Ceftriaxone+Tazobactam @ 10 mg/kg I/V, Inj. Meloxicam @ 0.2 mg/kg I/M, Inj. Chlorpheniramine maleate @ 0.5 mg/kg I/M, Inj. B complex (B_1, B_6, B_{12}) @ 10ml I/V and fluid therapy for three days and the animal had an uneventful recovery. Ventral hysterocoele is grossly visible by swelling or enlargement at the lateral abdomen (Purohit, 2006), especially on the right side. But on contrast, hernia occurred on the left side in the present case which is quite uncommon in cattle. The swelling is very prominent and it can be located anywhere from the lateral side of the thoracic cavity to the iliac crest, above the stifle (Mahdi, 2015). In cattle, the swelling is often situated between the hind legs, the udder being deflected to one side (Arthur, 2001). Jettennavar *et al.* (2010) reported that ventral hernias are generally ignored by the rural farmers unless they pose some serious problem. However, females with hernia during late pregnancy are at high risk of dystocia due to ineffective myometrial contractions and utero-peritoneal adhesions (Erdogan *et al.,* 2015). The most common type of hernia was the ventral abdominal and its prevalence was reported to range between 58.34 and 68.2 per cent of all types of hernias (Mahdi, 2015). Extreme abdominal distension

due to pregnancy or violent straining during parturition, weakness of the abdominal muscles, and different types of mechanical traumas (kick, horn thrust, and blunt objects) are the important contributory factors for occurrence of hernia (Krishnamurty, 1995). Cows and ewes may give birth spontaneously despite severe ventral hernia, although affected animals should be closely watched during labour and attended promptly (Arthur, 2001). Following calving, the abdominal opening may retract in some cattle and the abdominal contour becomes nearly normal (Roberts, 1986). Surgical intervention (herniorrhaphy) is useful in case of large hernial opening but in an extensive ventral abdominal hernia hernioplasty might be required (Jettennavar *et al.,* 2010). Hysterocoele due to ventral abdominal hernia was reported earlier in mare (Hanson and Todhunter, 1986), ewe (Peker *et al.,* 2020) and doe (Preethi *et al.,* 2018; Vijayanand *et al.,* 2009). In the present case, herniation of gravid uterus might be due to weakening of the abdominal muscles or due to trauma with a blunt object.

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