

## Rupture of prepubic tendon and ventral abdominal wall in a pregnant mare

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### ABSTRACT

A case of the prepubic tendon rupture, with complete ventral abdominal wall tearing with spontaneous separation of the gravid uterus from the cervix in a pregnant mare is reported.

**Key words:** Mare, Prepubic tendon, Rupture, Uterus

Rupture of the prepubic tendon and/or muscles of the ventral abdominal wall can occur in all breeds of the horses and are most common in old draft mares (Roberts, 1986). The causes of herniation of abdominal wall and prepubic tendon rupture in pregnant mares are similar such as physical trauma, hydrallantois, twins etc (Hanson and Todhunter, 1986). The two conditions are mostly distinguished from each other at postmortem examination only. Uni- or bilateral rupture of prepubic tendon in pregnant mares has been reported earlier (Adams, 1979; Jackson, 1982). However, complete ventral abdominal wall tear along with rupture of prepubic tendon in pregnant mares has not been reported in the literature. Here a case of the prepubic tendon rupture, with complete ventral abdominal wall tearing involving spontaneous separation of the gravid uterus from the cervix is reported in a pregnant mare.

A six year old mare, with 10.5 month gestation, in its second parity was presented to the university veterinary hospital with a history of anorexia, depression and gradual swelling at ventral abdomen since last two months. On the day of presentation of case, the animal had started straining, feeling pain and the ventral abdominal swelling increased. In the hospital, before a physical examination could be undertaken, the recumbent mare developed a spontaneous tear at the ventral midline cranial to the udder which increased longitudinally. The apparently healthy gravid uterus with a live fetus inside came out along with other intestinal organs (Fig. 1). The uterus (gravid and nongravid horns) had torn off at cervix and at ovarian end, with ovaries remaining inside the abdomen of mare (Fig. 2). A live foal was pulled out of uterus and was resuscitated successfully. The mare died within few minutes. Postmortem examination revealed an irregular tear of skin and underlying musculature, about 24" in length, extending from near the umbilicus to the perineal region, in between the two teats. There was bilateral rupture of the prepubic tendon. Excessive fat in the abdominal cavity was appreciated. However, histopathology of fat sample did not confirm any lipoma.

Ventral abdominal ruptures/ hernias in mares include rupture of the tendon and the tearing of the rectus abdominus, obliques abdominis and transversel abdominus muscles. The causes of herniation of abdominal wall and prepubic tendon rupture (trauma, hydrallantois, twins, excessive oedema of the ventral abdomen, foetal giants) are similar. These two are distinctly different defects but frequently they have similar

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Prepubic tendon rupture is seen most commonly in the mare and rarely in cow and ewe (Roberts, 1986). This condition is less common in cattle because of the presence of a subpubic tendon which gives extra support to the prepubic tendon (Keown, 1974). Mares carrying more weight in the abdomen (hydropic conditions, twins, gravid uterus) are predisposed to develop a tear or rent in the tendons or muscles due to increased weight on the abdominal floor and possibly further causing degenerative changes due to oedema and weight (Roberts, 1986; Youngquist, 1997). The cause of rupture of prepubic tendon and abdominal wall in the present case could be less space for the uterus due to excessive deposition of fat in the abdominal cavity. The weakening of the muscular wall due to infiltration of fat could not be ruled out. Oedema at the ventral abdominal wall cranial to udder as in this case was also observed in three pregnant mares with abdominal wall herniation involving prepubic tendon rupture (Hanson and Todhunter, 1986). Rupture of prepubic tendon should be suspected whenever a deep layer of ventral oedema occurs suddenly in late gestation n mares (Jackson, 1982; Roberts, 1980). In prepubic tendon upture cases rognosis for carrying the current pregnancy and subsequent pregnancies is poor and if survived rebreeding of such mares is definitely not indicated. Mares having abdominal hernia because of the tendon or muscle damage should be induced for foaling and assisted (Lofstedt, 1993; Roberts, 1986) to aid in foetal expulsion to avoid dystocia and further complications.



Fig 2: Torn off uterus with placenta



Fig 1: Mare with tear in ventral abdomen

## REFERENCES

- Adams, S.B. (1979). Rupture of the prepubic tendon in a horse. *Equine Prac.*, **1**:17.
- R.R. and Todhunter, R.J. (1986). Herniation of the abdominal wall in pregnant mares. *J. American Vet. Med. Assoc.*, **189**: 790-793.
- Jackson, P.G.G. (1982). Rupture of the prepubic tendon in a Shire mare. *Vet. Rec.*, **111**:38.
- Keown, G.H. (1974). The abdominal wall. In: *Textbook of Large Animal Surgery*. F. W. Oehne, J.E. Prier (eds). Williams and Williams Co., Baltimore, pp 146-179.
- Lofstedt, R.M. (1993). Miscellaneous diseases of pregnancy and parturition. In: *Equine Reproduction*. A.O. Kinnon, J.L. Voss. (eds). Lea and Febiger, Philadelphia p 596.
- Roberts, S.J. (1980). *Current Therapy in Theriogenology*. D.A. Morrow (ed.). 2<sup>nd</sup> edn. W.B. Saunders and Company. Philadelphia, p 748.
- Roberts, S.J. (1986). Diseases and accidents of gestation. In: *Veterinary Obstetrics and Genital Diseases (Theriogenology)*. 3<sup>rd</sup> edn. Vermont, Published by the author, pp 228-230.
- Youngquist, R.S. (1997). Abnormalities of pregnancy. In: *Current Therapy in Large Animal Theriogenology*. W.B. Saunders and Company, Philadelphia, p 122.