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Pathology

PARAPHIMOSIS IN A HORSE: A CASE REPORT

KEY WORDS: Postmortem Examination, Paraphimosis, Epididymitis And Rectal Prolapse

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ABSTRACT

A two year colt was presented for postmortem examination (PME) to the Department of Veterinary Pathology, College of Veterinary Science, Hyderabad. History of the animal revealed anorexia, weakness, dysuria, swollen penis with inability to retract, constipation, rectal irritation, rectal prolapse and death. Upon necropsy examination, the lungs showed emphysema, liver revealed necrotic foci, rectal prolapse, paraphimosis, epididymitis and unilateral hypoplasia of the testicle were noticed. Diagnosis was based upon the history, clinical signs and gross pathological examination. Neurogenic shock due to chronic paraphimosis was concluded to be the cause of death.

1. INTRODUCTION

Trauma, tranquilizers, neurological disorders and severe debilitation are the major causes of prolapse of the penis in horses (Pearson and Weaver, 1978). The condition rapidly progresses to paraphimosis, an inability to retract the penis into the prepuce. Two distinct aspects of penile dysfunction are inability to retract the penis and inability to achieve erection. Paraphimosis occurs mostly after semen collection or coitus (Neely, 1980). The skin at the preputial orifice becomes inverted, trapping the extruded penis and impairing venous drainage. The cause of paraphimosis is most often iatrogenic. Possible causes include a small preputial opening, priapism, foreign objects around the penis and a constricting band of hair at the preputial orifice or trauma (Davidson, 2010). Priapism and penile paralysis are frequently complicated by secondary paraphimosis. However, when the penis cannot be retracted, it is easily traumatized and circulation is impaired. Impaired circulation causes the penis to become edematous, which further compromises circulation. Vascular engorgement may progress to thrombosis of the corpus spongiosum and necrosis. A moderately compromised, chronically protruded penis will become dry, fissured and cornified (Fossum, 2013). Prolapse of the rectal mucosa occurs following straining, which may be associated with tenesmus, dysuria, neuropathy or genetics (Fubini and Ducharme, 2004). The present case deals with chronic paraphimosis in a two year old horse.

2. MATERIALS AND METHODS

A two year colt was presented for postmortem examination to the Department of Veterinary Pathology, College of Veterinary Science, Hyderabad. The diagnosis was based on the history, clinical signs and gross pathological findings.

2.1 CASE HISTORY AND TREATMENT

History revealed anorexia, weakness, weight loss, swollen penis with inability to retract, penile paralysis, rectal prolapse and death. Conservative treatment of supporting the exposed penis with slings, use of emollients, manual massage and the penis was manually replaced into the preputial cavity, however, the approach was unsuccessful. The horse was also treated for rectal prolapse by manual replacement and administration of stool softeners. However, the prolapse recurred. Gradually, the animal showed loss of appetite, weakness followed by death.

3. RESULTS AND DISCUSSION

A two year colt was presented for postmortem examination to

the Department of Veterinary Pathology, College of Veterinary Science, Hyderabad.

3.1 CLINICAL SIGNS

Clinically the animal showed anorexia, weakness, weight loss, dysuria, constipation, rectal irritation leading to prolapse of rectum. The penis was swollen and edematous with inability to retract. These signs might have resulted from an injury or trauma to the spinal cord.

3.2 GROSS PATHOLOGY

Grossly, the condition of the body was fair. The visceral organs appeared pale. The penis and prepuce were swollen and edematous with penis protruding from the preputial cavity. The lack of penile retraction might have impaired the drainage leading to penile and preputial swelling (Fig. 1). There was unilateral hypoplasia of the testicle, as a result the scrotal size also appeared small. There was epididymitis with thickening and occlusion. The prepuce showed marked swelling and thickening with greenish discoloration of preputial sheath. Prolonged prolapse of the prepuce and penis from the preputial cavity results in gravitational edema and inflammation. Accumulation of edema leads to seepage through epithelium causing excoriation and secondary bacterial infection. Similar cases of paraphimosis was also studied by Simmons *et al.* (1985) and Nevi *et al.* (2015).

A cylindrical soft mass protruding from the rectum was indicative of rectal prolapse (Fig. 2). Grossly, entire length of the intestines showed mild congestion with hemorrhages. Prolapse involved all the layers of the rectum with its complete evagination. The colon showed marked necrotic changes.

The liver appeared pale and flaccid with rounded edges. Numerous necrotic foci were present on the surface of the liver. The spleen appeared wrinkled with firm consistency. The muscles showed a cooked appearance (Fig. 3). The lungs revealed emphysema.

The cause of death was concluded as neurogenic shock due to chronic paraphimosis.



Fig. 1: Paraphimosis with edema of penis



Fig.2: Rectal prolapse

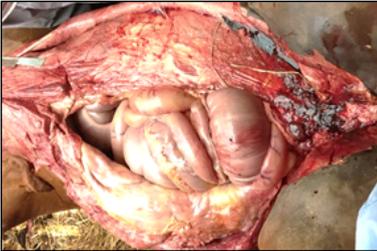


Fig.3: Pale visceral organs with cooked appearance of the muscles

4. CONCLUSION

Based on the clinical signs, history and gross pathology it can be concluded that the death was due to neurogenic shock as a result of chronic paraphimosis.

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6. REFERENCES

1. Davidson, A.P. (2010). Management of reproduction in small animals. In: The Merck's Veterinary Manual 10th Edition, pp 1287-1288.
2. Fossum, T.W. (2002). Surgery of the male reproductive tract. In, Text book of Small Animal Surgery, ed 2. Philadelphia, Mosby, pp 666-674.
3. Fubini, S. L and Ducharme, N. G. (2004). Farm animal surgery. Saunders. St. Louis.
4. Neely, D.P. (1980). Physical examination and genital diseases of the stallion. In: Morrow DA, ed. Current therapy in theriogenology: diagnosis, treatment and prevention of reproductive diseases in animals. Philadelphia: WB Saunders Co;694-706.
5. Nevi, T. O., Kisani, A. I and Wachida, N. (2015). Paraphimosis in a 7 month old weaver: A case report. Paripex Indian Journal of Research, 4 (9), 148-149.
6. Pearson, H and Weaver, B. M. (1978). Priapism after sedation, neuroleptanalgesia and anaesthesia in the horse. Equine Veterinary Journal, 10 (2), 85-90.
7. Simmons, H. A., Cox, J. E., Edwards, G. B., Neal, P. A and Urquhart, K. A. (1985). Paraphimosis in seven debilitated horses. The Veterinary record, 116 (5), 126-127.