

Surgical management of capped elbow in a horse

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Abstract

A five year old horse was presented with complaint of firm and spherical shaped swollen mass at point of elbow. It was soft, tight and not responding to intrasynovial injection of corticosteroids. On the basis of history, physical, clinical examination and fluid on exploratory puncture of swollen mass, case was diagnosed as capped elbow and decided to perform surgery.

Keywords: Capped elbow; Horse.

Introduction

Olecranon bursitis or capped elbow is inflammation of an acquired, subcutaneous bursa over the olecranon process of ulna *i.e.* point of elbow. It is also referred as “Hygroma of the elbow or Shoe boil”. It may appear either as a simple bursitis or may be associated with parabursitis with thickening of the surrounding tissues. Inflammatory changes may be present in the skin, subcutis or olecranon bursa depending on the nature and severity of the trauma (Fathy and Radad, 2006). Repeated trauma due to lack of bedding on hard floors and narrow or short stalls, which restrict free movements of the animal are predisposing factors (Tyagi and Singh, 2010). Trauma, Excessive movement of skin and tear the subcutaneous connective tissue over the olecranon process causes subcutaneous accumulation of transudative fluid that eventually, becomes encapsulated by fibrous tissue lined with a synovial like membrane (Shappel and Little, 1992). Acute bursitis presents as dry, serous or purulent whereas chronic bursitis may follow the acute form and can be cystic, proliferative, fibrous or hemorrhagic. Moreover, chronic bursitis is characterized by accumulation of excessive bursal fluid, thickening of wall of bursa by fibrous tissue, extrusions of fibrous bands or septa within the bursal cavity and generalized subcutaneous thickening (Fathy and Radad, 2006).

History and Observation

A five year old horse was presented with complaint of firm and spherical shaped swollen mass at point of elbow (Fig.1) for last 25 days. The swelling was examined for consistency. It was soft, tight and not responding to intrasynovial injection of corticosteroids. Aseptic paracentesis revealed a clear fluid indicating bursitis. There was no lameness, no pain on palpation. Clinical examination revealed normal rectal temperature, heart rate and respiration. On the basis of history, physical, clinical examination and fluid on exploratory puncture of swollen mass, case was diagnosed as capped elbow and decided to perform surgery.



Fig-1. Firm and spherical shape swollen mass at the point of elbow



Fig-2. Removal of excess bursa

Treatment

Animal was operated after aseptic preparation of the operative site under sedation with xylazine @ 1.1 mg/kg *i/v* along with local infiltration with 2% lignocaine hydrochloride. After aseptic preparation of site an elliptical skin incision was made along posteriolateral aspect of point of elbow over the olecranon bursal swelling and excess mass was excised (Fig. 2). Excessive skin was trimmed and the wound was closed by simple interrupted sutures using chromic catgut no-2 for subcutaneous tissue to obliterate the dead space and interrupted horizontal mattress sutures for skin. The operative site was protected with sterilized pressure bandage for 10 days which was changed regularly. Postoperatively, the animal was given Gentamicin @5mg/kg body weight, flunixin megludine @ 1.1mg/ Kg body weight *I/V* twice daily for 4 day and dressing of wound was done with Povidone iodine on alternate day for 10 days till removal of skin sutures. Animal made uneventful recovery.

Discussion

Bursa is a small fluid-filled sac of white fibrous tissue and lined with synovial membrane. It provides cushion between bone, tendon and muscle around a joint, filled with synovial fluid and found around almost every major joint of the body. Bursitis, inflammation of bursa is characterized by a movable swelling over the olecranon tuberosity. The swelling caused by bursitis can be variably sized and can affect one or both fore limbs (Honnas *et al.*, 1995). A common cause of bursitis is direct trauma that gives rise to acute bursitis, when it is severe and chronic bursitis, when it is mild and repeated. Also, bacterial infection and toxemia have been reported to contribute in the development of bursitis (Fathy and Radad, 2006). In case of small swelling, drainage of fluid with needle followed by injection of corticosteroids is fruitful (Honnas *et al.*, 1995) but surgical removal of bursitis was effective for the treatment of olecranon bursitis in horses because of more rapid healing and economical than conservative treatment (Hayat *et al.*, 2009 and Arican *et al.*, 2005). In the present study, the bursal mass was dissected surgically. The horse was kept in the standing position for a period after surgery to prevent stress at the incision site resulted in an uneventful recovery.

Conclusion Surgical removal of bursitis was effective for the treatment of capped elbow in horses.

References

- 1) Arican M, Kocabiyik A, Izci C, 2005. Treatment of bilateral olecranon bursitis in a horse. *Indian Veterinary Journal* 82: 325.
- 2) Fathy A, Radad K, 2006. Surgical treatment and histopathology of different forms of olecranon bursitis in cattle and buffalo. *Journal of Veterinary Science* 7: 287-91.
- 3) Hayat A, Han MC, Sagliyan A, Biricik HS, 2009. Different treatment of olecranon bursitis in six horses. *Journal of Animal and Veterinary Advances* 8: 1032.
- 4) Honnas CM, Schumacher J, McClure SR, Crabill MR, Carter GK, Schmitz DG, Hoffman AG, 1995. Treatment of olecranon bursitis in horses: 10 cases (1986-1993). *Journal of American Veterinary Medical Association* 206: 1022-26.
- 5) Shappel KK, Little CB, 1992. Special surgical procedure for equine Skin, In: Auer, eds. J.A., *Equine Surgery*, W.B. Saunders Co., Philadelphia, pp272-84.
- 6) Tyagi RPS, Singh J, 2010. *Ruminant Surgery*. CBS Publishers and Distributors , Delhi. pp312.