

SURGICAL MANAGEMENT OF CHRONIC OLECRANON BURSITIS IN A STALLION

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Abstract: A case of chronic olecranon bursitis in a six year old stallion was treated by surgical resection under sedation and local analgesia. The clinical symptoms, surgical management, postoperative measures taken and clinical outcome of the case were discussed.

Keywords: Olecranon bursitis, elbow hygroma, surgical resection, stallion.

Introduction

Bursa is a fluid filled sac found over every major joint of the body providing a cushion effect between bones and tendons or muscles (Anteplioglu et al., 1984). Olecranon bursitis which otherwise termed as elbow hygroma or elbow seroma is a fluid filled cavity surrounded by dense fibrous connective tissue resulted from inflammation of the bursa, it becomes harder with less amount of fluid If it is not treated earlier, (Fossum, 1997). This is considered as a false cyst as it lacks synovial or epithelial lining (Bellah et.al., 1993). Inflammation of bursa can result from a continuous trauma due to hard work or training or faulty shoeing practices or occasionally conformation defects. Bursitis can be classified as acute when the symptoms are sudden, severe and as chronic when the symptoms are mild, repeated (Fathy and Radad, 2006). This condition is more frequently reported in horses and less frequently in dogs (Venugopalan et al., 2004). In the present paper surgical management of olecranon bursitis in a stallion was discussed.

Case history and Observations

A six year old stallion meant for marriage possession was presented to the clinics with a complaint of swelling over the posterior aspect of left elbow (fig-1) for a period of five months. As the condition was not painful initially, the horse was kept on working continuously for a period of 4 to 5 months with out giving proper rest. As a result the horse

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evinced severe pain when it sat with the affected elbow down. It was said to have been treated by a local veterinarian for the previous five months with a poor outcome. Clinical examination prompted a hard swelling with pus discharges from the centre of it. Fibrous tissue was noticed lining the pyogenic sac indicating its chronic nature. The history of an initial soft swelling which followed a chronic course that eventually ended up in a hard swelling with discharges from its centre.

The physiological parameters like rectal temperature, pulse rate, respiratory rate were well within the normal reference range. Hematological parameters revealed mild neutrophilia where as serum biochemical parameters were within the normal range. Based on the clinical signs and findings of clinical examination, it was diagnosed as olecranon bursitis and it was decided to manage it surgically.

Treatment

Surgery was postponed to later date, by which time the pus discharges from the mass ceased by treatment with mild antiseptic solutions and irritants. A prophylactic dose of Tetanus Toxoid (1500IU) was given intramuscularly to the animal on the day of its presentation. On 4th day of its initial presentation, the horse was sedated with a combination of Acepromazine Maleate at dose rate of 0.03 mg per Kg body weight and Butorphanal at the dose rate of 0.02 mg per Kg body weight intravenously. Local analgesia was achieved by 2% Lignocaine hydrochloride. After preparing the animal for aseptic surgery, the superficially visible blood vessels were ligated sufficiently away from the surgical site. Following the elliptical skin incision, the mass was excised in toto avoiding damage to the underlying tissues (Fig-2). The bleeding points were arrested by scrupulous ligation. The fascia and Subcuticular layers were sutured with No.1 polyglactin 910. Skin edges were sutured (Fig-3) as per the standard procedure. A creep bandage was applied over the moderately padded elbow joint (Fig-4) to protect the suture line from the action of different forces during walking and daily dressing of the wound was advised. Owner was cautioned to avoid movements involving the flexion of elbow joint. The horse was given Streptopencillin at dose rate of 500mg/50Kg Body weight IM once daily for 7 days and Meloxicam at the dose rate of 0.2 mg/Kg Body weight SC once daily for 3 days.

Results and Discussion

Complete wound healing was observed by 11th postoperative day and no complications were recorded with in a n observation period of 6 months. The olecranon bursa is found between the tendon of triceps brachii and olecranon process of ulna. But usually, this bursa is not

involved but an acquired subcutaneous bursa often develops over the olecranon process due to constant irritation caused by the shoes of the contra lateral hind limbs. Hence, this condition is also referred to as shoe boil. The etiology responsible for olecranon bursitis in the present case was thought to be heavy and continuous work in a period of 4 to 5 months. Honnas et. al (1995) reported that mild and repeated trauma may cause chronic bursitis where as Davis and Broughton (1996) attributed brucellosis infection for the development of prepatellar bursitis in cattle.

Usually in the initial stages of acute bursitis, the trauma causing the condition should be eliminated followed by cold hydrotherapy, pressure bandage and rest (Samasar and Akin, 2006) but whenever there is cystic bursitis, it is treated by aspiration of serous fluid and administration of hydrocortisone into bursa (Arican et al, 2005) but this treatment should be considered as unsuccessful if the condition still remains after three or four phases of treatment (Johnston 1975). In the present case also, similar treatment was given without following aseptic precautions by the local veterinarian which was assumed to be a factor responsible for suppuration in the bursa. Other treatment methods like administration of irritants into the cyst by opening it, application of iodine ointments superficially were reported by Fathy and Radad (2006) and Hayat et al., (2008) to treat chronic bursitis.

In the present case, owner worried about the aesthetic appearance of the limb which might have compelled him to agree for surgical resection even after getting appraised of the possible postoperative complications. Honnas et al., (1995) opined that, surgical resection of the bursa was preferable when all the methods of medical treatment failed; whereas, Fathy and Radad (2006) observed rapid and economic healing during surgical intervention than during conservative methods of treatment for chronic bursitis.

In the present case, surgical resection was performed and the wound was protected with a creep bandage to neutralize the forces acting on the suture line while walking. Van veenendaal et al., (1981) suggested that, surgical resection of bursa could give a good outcome but for the chances of wound dehiscence, infection, healing by second intention resulting in unacceptable cosmetic appearance; whereas Honnas et al., (1995) asserted that, such postoperative complications could be minimized by restricting the movement of the horse for 2 weeks. The successful outcome noticed in the present case could be attributed to a good surgical technique as well as proper postoperative care taken by the owner.

Conclusion

Chronic olecranon bursitis is the condition which requires surgical intervention instead of repeated medical treatment methods. The owners of the animal should be explained about the possible postoperative complication in surgical resection before intervening so that they can take appropriate care to enable good outcome as in the present case.

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Fig-1: photograph showing chronic olecranon bursitis of left forelimb in a stallion

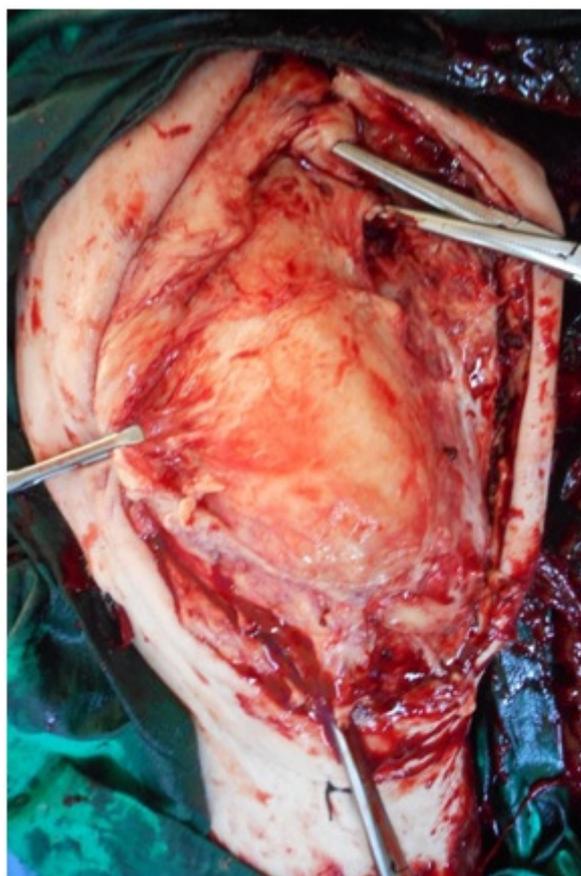


Fig-2: Intraoperative photograph showing elbow joint after resection affected bursa



Fig-3: Photograph showing apposition of skin edges with interrupted sutures



Fig-4: Postoperative photograph showing creep bandage at the affected elbow joint