

## A CASE REPORT OF APICAL FRACTURE OF MEDIAL SESAMOID IN A HORSE

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### Introduction

Sesamoid injuries are common in race horses and horses that deal with speed. The average sized race horse is almost 7 times the weight of an adult person but the size of the bones in their legs is only slightly more than that of an average person. However, their bones are much denser than that of humans (Berosa). Sesamoid injuries can be traced early and such fractures can be prevented. A case of apical fracture of the left medial sesamoid is discussed.

### Case History

A 5 year old bay gelding, was presented at the horse clinic with the history of a painful swelling on the left fore fetlock. The condition had started a few months back. The owner was administering anti-inflammatory injections without proper veterinary guidance. The case was presented when there was no improvement and the animal could not further be used for racing.

### Diagnosis, Treatment and Prognosis

The radiograph of the joint revealed an apical

fracture of the medial sesamoid (Figure 1).

The fracture was old and the fragment was being pulled up by the suspensory ligament. This warranted internal fixation for proper and complete healing or removal of the fractured segment. However the owner was not willing for surgical reduction. Hence rest for 1 year was advised. A poor prognosis was given with no guarantee of its return to racing. Though the swelling reduced, its gait remained abnormal.

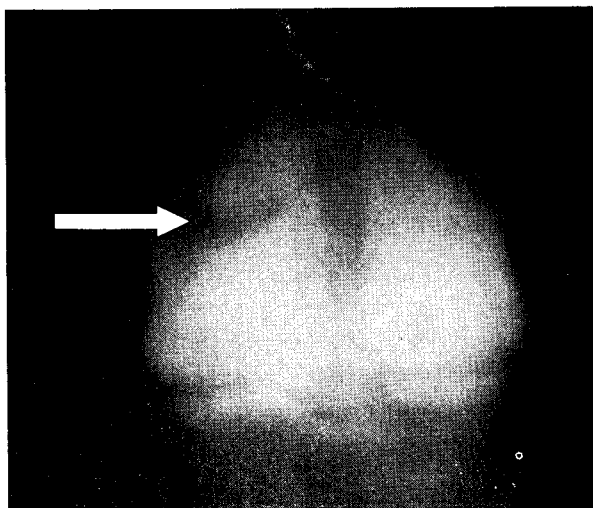
### Discussion

Sesamoid injuries are common in racing horses (Louise et al., 2000; Spurlock and Gabel, 1983 and Woodie et al., 1999) due to speed and overextension of the fetlock joint (Louise et al., 2000). In 2 year old horses, early signs of stress can be recognized radiographically as wide channels running through the sesamoids (Sesamoiditis). The channeling represents the weaker zones along which fractures occur.

The most common fractures are found at the apex, mid-body and base of the sesamoid. The uncommon ones are abaxial, axial and comminuted fractures. Apical fractures carry the best prognosis. Basilar fractures carry the worst prognosis. Diagnosis of sesamoiditis using radiographs and nuclear scintigraphy is useful for providing early treatment and rest.

Once fractured, healing of sesamoid is more difficult than other bones due to poor blood supply, continuous tensile force of the suspensory ligament and constant movement (Berosa). The size of fractured bone is directly proportional to the chance of reduced healing, i.e., the more of suspensory ligament is attached, the less chances of healing. The only fracture with a good prognosis is the apical fracture as the fractured bone can be safely removed by arthroscopy and the horse return to work and racing.

Figure 1: Radiograph showing apical fracture of medial sesamoid



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Treatment options include combinations of bone grafting, lag screw fixation, cerclage wiring with shock-wave therapy, placing the limb in a cast, and/or splinting and bandaging.

Prevention is by gradual training of a race horse, giving rest when fatigued, running on even tracks, continuous monitoring and care of the joints, good support wraps and overnight standing bandages. Early preventive diagnostics help.

### Conclusion

A case of apical fracture of the left medial sesamoid is being discussed.

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## SPIROCERCA ASSOCIATED SARCOMA IN A DOG

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### Introduction

Canine spirocercosis is a helminthic infestation caused by the nematode *Spirocera lupi*. It is transmitted to dogs primarily by several species of dung beetles or by vertebrate paratenic (transport) hosts that have ingested infected beetles (Berry, 2000). The present paper describes an incidence of spirocercosis in a dog which was presented in clinics suspecting rabies.

### History and clinical signs

A dog was presented to the clinics of College of Veterinary and Animal Sciences, Pookot, suspecting rabies. The animal exhibited clinical signs like anorexia, difficulty in swallowing, lethargy, ataxia and nervous signs. Symptomatic treatment was started after routine haematology and faecal sample examination. Unfortunately the animal died

on the very next day and the owner presented the carcass for postmortem examination.

### Materials and methods

The faecal sample was examined for the presence of eggs of parasites. Post mortem examination was carried out. Samples were collected in 10% buffered formol saline for routine histopathology by H&E staining method. Smears were prepared from hippocampus and performed Seller's staining to rule out rabies.

### Results and discussion

Faecal sample was negative for eggs of parasites. Post mortem revealed the presence of three large nodules on the esophagus at a point near to midway between the diaphragm and the aortic arch. The associated area was ulcerated (Figure 1). On resection of the nodules, adult worms

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Figure 1: Three nodules on esophagus at a point near to midway between the diaphragm and the aortic arch showing ulceration of associated area

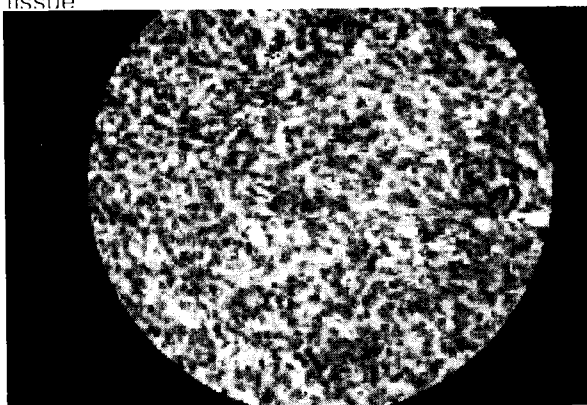


were found. The nodule was hard to touch formed of muscle mass. Histopathology revealed proliferation of fibroblastic cells with frequent mitotic figures. The nodule was malignant in nature. Vascular hyperplasia was also evident (Figure 2).

Fibrosarcomas found associated with spirocercosis is common in dogs (Ranen et al, 2004). The sarcoma associated with the *Spirocerca* infection was in an initial stage of metastasis as no other organs showed hyperplastic fibroblastic cell population in their parenchyma. The hippocampal smear was negative for Negri bodies and the death was diagnosed to be due to spirocercosis.

Very often, animals showing nervous signs, difficulty in swallowing and ataxia could be suspected for a case of rabies. The post mortem examination was helpful in diagnosing the case and alleviating the fear of owner. The paper re-ascertained the necessity of complete and

Figure 2: Fibrosarcoma- highly malignant fibroblastic cell proliferation of the nodule with frequent mitotic figures and hyperplastic vascular tissue



systematic post mortem examination in rabies suspected carcasses which is the deadliest zoonosis ever known.

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