

## EQUINE MEDICINE

# RADIOLOGY X-PERTS A CASE STUDY

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A 9 YEAR OLD MALE FOREIGN-BRED HORSE HAD BECOME EXTREMELY LAME ON HIS RIGHT FORELIMB. THE OWNER IMMEDIATELY RUSHED TO CALL CAVELVET EQUINE CLINIC FOR EVALUATION. ON OUR ARRIVAL THE HORSE WAS NOT ABLE TO BEAR WEIGHT ON HIS RIGHT FORELIMB AND WAS VERY PAINFUL AROUND HIS PASTER. HIS PASTER JOINT AND FETLOCK JOINT WERE ALSO SWOLLEN.

X-rays were taken straightway and revealed a fracture of his long pastern bone (P1). The fracture extended from the articular surface of his fetlock joint, right down to the articular surface of his pastern joint as shown in the figure (1)



*Dorsopalmar image of a pastern, showing a complete sagittal fracture of the proximal phalanx (note the lucent line which represents the fracture)*

### What is a Fracture?

Fracture: A break in bone or cartilage. Although usually a result of trauma, a fracture can be the result of an acquired disease of bone.

This case was treated by Dr. Ashraf Ibrahim El-Kalla through administering biphosphonate injection, applying a high pressure cast on the affected site and regular conservative treatment, including:

- 1 NSAID (Non-Steroidal Anti-Inflammatory Drugs) drugs to relieve the pain and the swelling.
- 2 Complete rest in well bedded recovery box.
- 3 Close monitoring through treatment phase.

After 6 weeks of treatment this male was radiographed by an X-ray showed that the fracture was healing well as shown in figure (2)



*Dorsopalmar image of a pastern, showing the healing progress and in complete fusion of the sagittal fracture in the proximal phalanx (white arrow).*

### Bisphosphonate

This medication is administered intravenously and acts to inhibit the activity of osteoclasts, which are the cells involved with cleaning up inflamed bone.

### What to DO in such case:

- 1 Keep the horse quiet and do not move it is from the location it is in until the leg is stabilized.
- 2 Contact your veterinarian immediately to obtain X-ray images.
- 3 If the leg is clinically unstable, it may be better to apply external cooptation before obtaining an X-ray.
- 4 Provide pain relief with NSAID(Non-Steroidal Anti-Inflammatory Drugs) drugs only.

### What Not to DO in such case:

- 1 Do not exercise the horse. If the horse is exercised, such fractures can propagate into catastrophic multiple fractures.
- 2 Do not delay obtaining a diagnosis. Important: distortion of the bone ends may make fracture repair more difficult; increased soft tissue injury may compromise the blood supply to the fracture.

After another 6 weeks of treatment this image was obtained by X-ray as seen in the figure (3)



*Dorsopalmar image of a pastern, showing complete fusion of the sagittal fracture in the proximal phalanx (white arrow).*