

If Only They Could Talk

Our regular focus on equine health. A contributor to Kingsley Kickback (p.8) refers to this article by former MJR vet JOHN MARTIN from June 2011 on shin problems which we are happy to re-print.

SPLINTS and sore shins are conditions commonly seen in young racehorses as they adapt to the strains and forces of beginning training.

Both conditions are easily treated and generally result in only a short interruption to their training regime.

Splints

Between the horse's knee and fetlock there are three bones. The biggest of them is the large cannon or third metacarpal bone, the main weight-bearing bone in the lower limb. On either side of the cannon bone there are two smaller bones, the second and fourth metacarpal bones, also known as the splint bones.

These splint bones form part of the knee joint but bear little weight and end in a small prominence halfway down the cannon bone known as the splint button.

The splint bones are attached to the cannon by the interosseous ligament. As the horse ages this ligament calcifies causing the three bones to fuse.

The same anatomy is found in the hind limb between the hock and fetlock, known as the metatarsal bones. Conditions affecting these smaller metacarpal/metatarsal bones are known as splints.

In the young horse the interosseous ligament which attach-

es the splint bones to the cannon can become damaged or torn from the concussive and rotational forces of exercise. This will cause heat, pain and swelling in the area between the splint and the cannon. In an attempt to stabilise this damaged attachment, new bone will be laid down around the ligament resulting in the formation of a bony lump known as a splint.

The medial or second metacarpal bone is the most common bone affected as this is subjected to the most force during exercise. Conformational faults such as off-set knees will further predispose a horse to developing splints as it will increase the forces exerted through the medial metacarpal bone, hence putting an even greater strain on the interosseous ligament.

The picture and X-ray below show a large medial splint and its corresponding radiograph.

The horse will often have mild lameness when the splint is forming.

At this stage treatment should consist of reduced ridden exercise and anti-inflammatory therapy; cold-hosing, swimming and non-steroidal anti-inflammatory drugs.

As the damaged ligament settles it will result in a hard non-painful bony lump which is of cosmetic significance only.

Sore shins

Sore shins is a condition seen almost exclusively in two-year-old racehorses as their training intensifies. It results from the strains and stresses of high-speed exercise on immature bones.

As the young racehorse begins cantering and galloping its bones are often not fully conditioned to withstand these forces and as a result they

experience inflammation and micro-fractures of the cortex of the cannon bone.

In response to this, new bone will form over the weakened area in an attempt to strengthen and adapt to these strains. This reaction of bone formation causes the inflammation and pain associated with shin soreness. In more severe cases of sore shins the bone formation may be so great that a large callus or 'buck' will form on the front of the cannon bone.



A horse with a "buck", or large callus (left) and an X-ray version of it

Horses with sore shins will have heat and soreness associated with the front of their cannon bone and will resent palpation of the area.

They may occasionally have mild lameness. Horses affected

with sore shins should have their exercise reduced and fast work avoided until the inflammation has settled. They should also receive intensive anti-inflammatory therapy with cold-hosing and non-steroidal anti-inflammatory drugs.

Swimming is also an excellent option for horses with sore shins as it provides cold therapy while maintaining a level of fitness.



Swimming provides cold therapy

Here at MJR, horses with sore shins will have their fitness maintained by daily sessions in the swimming pool. This and other treatments necessary for these common conditions are included in the daily training fees. ■



A medial splint on a horse's left foreleg, and in X-ray



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