

If Only They Could Talk



Our regular focus on equine health. This month MJR vet JOHN MARTIN discusses splints and sore shins, two fairly common ailments which

particularly affect young horses in the early stages of their training.

THE SPRING is always an exciting time in a Flat racing yard as work for the two-year-olds is stepped up, they begin galloping and the potential superstars of the future start to become apparent. As their work increases the young racehorse will need to adapt to the strains and forces of this increased workload, and splints and sore shins are two conditions commonly associated with this process.

Splints

BETWEEN a horse's knee and fetlock are three bones. There is the large cannon bone, which is the third metacarpal bone and is the main weight-bearing bone in this part of the leg. Either side of the cannon bone there are two smaller bones, the second and fourth metacarpal bones, also known as the splint bones.

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

In the young horse the interosseous ligament which attaches the splint bones to the cannon can become damaged or torn from the concussion 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 metacarpal bone is the most commonly affected bone as this is subjected to the most concussive forces during exercise. Conformational faults, such as off-set knees, will further predispose a horse to developing splints as it will increase the forces being exerted through the medial metacarpal bone, hence putting strain on the interosseous ligament.

The horse will often have mild lameness when the splint is forming. Treatment involves a reduction in exercise, anti-inflammatory therapy, cold hosing, swimming and non-steroidal anti-inflammatory drugs. The horse will be dropped back to walking and swimming exercise only until sound at trot, before resuming ridden trotting exercise for a similar period of time.

In the majority of cases this will be sufficient for the inflammation in the damaged ligament to settle and it will result in a hard non-painful bony lump which is only of cosmetic significance. Occasionally, this rehabilitation will not be sufficient to settle the inflammation and in these cases the horse will require full box rest for a short period before we start to increase their exercise again.

Sore shins

SORE shins is a condition seen almost exclusively in young racehorses as their training intensifies. It results from the strains and stresses of high-speed exercise on their 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, attempting to strengthen the cannon bone and adapt to these strains.

This reaction of bone-forming causes the inflammation and pain associated with sore shins. In more severe cases of sore shins the reaction of bone formation may be so great that a large callous or 'buck' will form on the front of the cannon bone.

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 ridden fast work should be avoided until the inflammation has settled.

They should also receive intensive anti-inflammatory therapy with cold hosing and non-steroidal anti-inflammatory drugs. Swimming or a session on the water-walker are also excellent options for horses with sore shins as it provides cold therapy but also allows them to maintain a level of fitness.

• Here at Johnston Racing horses which are found to have splints or sore shins will maintain their fitness by daily sessions in the swimming pool or on the water-walker. This and all other all treatments necessary for these common conditions are included in the daily training rate.



The arrows show the splint