

If Only They Could Talk



Neil Mechie

Our regular focus on equine health. This month new MJR vet NEIL MECHIE considers emergency first aid for an injured horse

A COMMONLY encountered scenario here at Mark Johnston Racing and in private equine veterinary practice is a call from a concerned owner, groom or rider with an injured horse.

Many have been pulled up during exercise or found in the box or field. A vet's natural response in these instances is to spring into action providing emergency first aid and the best possible ongoing treatment.

In this article I aim to shed some light on the thought processes involved in the first aid treatment of your horses and the use of bandages in both the prevention and treatment of such injuries.

A frequently asked question is what you should do if you find yourself first on the scene where a horse has sustained an injury.

1. Restrain the horse

- Horses are herd animals and their natural reaction in stressful situations is driven by a hormone called adrenaline which produces a "fight or flight" response that will either drive them to flee after other horses or to stand their ground.
- This reaction explains why horses, even with severe injuries will sometimes continue to run after the others in a race or on the gallops. As you can imagine our aim is to prevent any exacerbation of the injury, and so quick restraint to keep the horse calm is paramount.

2. Get help

- Injuries don't always occur in a safe environment; gallops, public roads and busy racing yards contain many hazards. Preventing further injury and undue stress is very important in the management of an injured horse.

3. Call the vet

- Horses with fractures or apparently unstable limbs should not be moved as this may displace fragments of bone, making treatment impossible.
- In cases where haemorrhage (profuse bleeding) is a problem, pressure should be applied. Any kind of material is suitable as long as it is clean.
- If there are any foreign bodies such as nails or splinters, leave them in place if possible. This will aid the vet in assess-

ing the severity of the injury and potential structures that may be involved. You may also inadvertently do further damage as you remove such objects.

On arrival the veterinarian will assess the situation in a methodical manner. The horse's injury will

be localised and its major body systems examined. At this stage the crude but essential decision of whether the injury is treatable or not must be faced. As many of you will be aware some injuries in horses are catastrophic and the only treatment option available is euthanasia.

Once the decision to treat the injury has been made a more in-depth evaluation of the injury is now required. Some injuries may require immediate stabilisation and analgesia (pain relief) is also commonly given to make the horse more comfortable. At Mark Johnston Racing the horse is then transferred to our specialist veterinary facility where the investigation can continue.

The horse is assessed from a distance. Can it bear weight? Are there any obvious swellings? Palpation and manipulation provide vital clues to the severity of the injury and the likely structures involved. The vet will run their hands over the limb and may gently move it while feeling for pain or instability associated with specific anatomical structures.

Where wounds are present they are initially cleaned with dilute chlorhexidine (hibi scrub) and flushed with sterile saline. A sterile probe is then used to explore the wound and affected structures. If the wound is in close proximity to a joint or tendon sheath, a sample of the synovial fluid will be taken and the structure distended with sterile saline to check for penetration.

Any horse with a direct communication from a wound into a joint or tendon sheath must have a surgical lavage as soon as possible. These structures do not tolerate any level of infection, and without prompt treatment sepsis can cause irreversible damage to cartilage and soft tissues.

The next decision is whether to suture or not to suture?

If the wound is superficial and the edges can be opposed then surgical staples or suture material can be used to close the wound by primary intention. This will accelerate healing and return to exercise.

If the wound edges are under tension when opposed, the wound is very dirty or the tissue very damaged the wound should be left to heal by second intention. Secondary intention healing involves leaving the wound edges open; initially it will discharge as the body's natural inflammatory cascade tries to remove bacteria and damaged tissue.

Granulation tissue will then start to grow out from the base of the wound.

It is highly vascular and acts as a scaffold for epithelialisation, the migration of skin cells across the wound surface. Formation of granulation tissue can be excessive especially if the wound edges are subjected to movement.

The protruding granulation tissue, proud flesh acts as a barrier to epithelialisation. In these cases the excess granulation tissue must be removed surgically or made to recede by applying topical agents containing steroids.

Topical agents are creams, ointments or sprays that can be applied to wounds. There are many topical agents used due to their varying properties.

These properties include: antimicrobial affects, anti-inflammatory, promoting formation of granulation tissue, slowing the formation of granulation tissue and drying. They can be placed prior to bandaging or used alone in the treatment of wounds.

Once the site of the injury has been determined, radiographs (x-rays) and ultrasound scans are used to assess the severity of the injury and structures involved.

Repeat diagnostic imaging is often indicated a few days later to look



MJR's Senior Travelling Manager, Robynne Watton, holds Jukebox Jury after his run in the Melbourne Cup last year. A full limb Robert Jones bandage has been placed to help stabilise a fractured cannonbone.

for more subtle signs associated with stress fractures or soft tissue injuries.

Often a second opinion is sought from experts in the fields of surgery and racehorse lameness. If the optimum treatment cannot be provided at the yard the horse will be referred for surgery or further treatment at a specialist equine referral hospital.

Bandages are commonly used in the prevention and treatment of injuries. Outlined below are some of their many uses.

Compression:

- To prevent excessive haemorrhage.
- To hold a dressing in place over a wound.
- Reduce swelling in an inflamed or infected leg.

Support:

- Of a weak or painful limb.

Stabilisation:

- Of a fracture, unstable joint or damaged tendons and ligaments.

Protection:

- Prevent contamination of a wound.
- Prevent external trauma (e.g. Over-reach, travelling bandages). Dressings are the primary layer placed in contact with the wound and skin. There are many different dressings, with varying properties for use on different sorts of wounds. Some dressings draw puss and discharge from wounds, for example poultices. Others have antimicrobial properties including silver sulphadiazine.

The layers of a bandage each have their own purpose. The base skin contact layer is a fleecy soft bandage used to prevent rubs or sores from forming.

Cotton wool or gamgee provides the conforming layers which fill the contours of the limb and pad the bandage. Crepe bandages form the compression layer applying gentle even pressure to the conforming layers.

For bandages where more pressure is required multiple conforming and compression layers are repeated increasing the pressure with every layer. The outer layer is an adhesive protective layer that holds the bandage together.

Splints are used commonly in emergency situations in conjunction with bandages to provide support and aid weight-bearing in fractured or unstable limbs.

The splint is placed at different positions around the leg depending on the site of injury and forces acting on the limb. Casting is used in the treatment of fractures, unstable joints and wounds. Casts provide support, reduce movement and maintain compression of the limbs when placed correctly.

As well as standard casts, cast material can be placed around a bandage or the foot of a horse to provide extra support and rigidity.

Injuries are not uncommon in racehorses and pleasure horses alike.

Here at Mark Johnston Racing we endeavour to provide the best quality care and treatment to all the horses in training with us.

The costs of all veterinary treatments are included in the inclusive daily training fees. ■

