

# If Only They Could Talk



Our regular focus on equine health. This month vet **CHARLIE JOHNSTON** discusses quarter cracks and their treatment

**Q**UARTER CRACKS are longitudinal cracks of variable length in the hoof wall occurring in the quarter of the hoof nearest to the heel on either the medial or lateral side of the foot.

They most commonly originate in the upper half of the hoof wall, or close to the coronary band, but can on occasions work their way up the hoof wall from the sole. These cracks are more

frequently found in front feet and, due to the thin hoof wall at the quarters, often involve the sensitive soft tissue below the hoof wall which can cause pain and therefore lead to lameness. The cracks may bleed at exercise and the exposure of the sensitive tissue in full thickness cracks can allow dirt and bacteria under the hoof wall which will lead to the formation of infections and abscesses.



*A quarter crack*



*A patch is applied to help stabilise the crack*

These cracks are certainly not career or life-threatening issues, but they can prove highly frustrating as the pain or lameness associated with them can cause decreased athletic performance and the slow growth of the hoof wall means that the healing process is very gradual and can lead to a lot of lost training time.

There are many causes for quarter cracks, most of which revolve around abnormal strain being placed on the hoof wall. This can be due to excessive growth of the hoof wall from a lack of trimming of the feet, or a poor quality hoof wall not being able to withstand the normal strains of exercise.

Poor limb confirmation or abnormal hoof confirmation can also cause a foot imbalance that increases these abnormal strains and may predispose quarter cracks. Injury to the coronary band (which contains the germinal cells from which the hoof wall grows) from an over-reach or knock can damage the quality of hoof wall that then grows down, leading to a crack.

The majority of veterinary literature describes the primary goal in the management of a quarter crack to be 'stabilisation' of the hoof capsule to prevent further progression of the crack.

This can be done in a number of ways including inserting stainless steel wires across the crack or most commonly now by bridging the crack with an acrylic hoof patch. Older textbooks even describe using motorised burrs to open up the crack before filling with glue or plastic.

In the past we have tried many of these advised treatments and have even referred horses to vets or specialist farriers but with little success, horses missed extended periods of time, even entire seasons. So we now employ a different methodology here at Mark Johnston Racing which revolves around removal of the horses shoes.

General wear of the foot without shoes on shortens the feet but we also sometimes perform corrective trimming, trimming the foot back so the heels are short and minimising the strain on the crack. With the shoes off and the feet short, we allow the crack to grow out from the coronary band also administering supplements to try and assist hoof growth. The horses exercise is restricted to trotting on a soft surface to prevent them from becoming foot sore.

Once there has been an inch of growth of new undamaged hoof from the coronary band we then look to reapply shoes and increase training. If a horse does become foot sore during this period, we may use aluminium bar shoes which are lighter and less cumbersome. They also increase the contact area with the ground, providing support and decreasing the vertical movement at the heel bulb therefore reducing the strain on the crack.

Having had no success with previous methods of treatment, we now have a 100% success rate of getting horses back on the track within the same season and the hold up is normally only somewhere between 4 and 6 weeks.

We have often seen horses suffering from quarter cracks simultaneously be affected by cracked heels, "exudative pastern dermatitis", where there is inflammation or infection of the heel and lower pastern region.

In the past we hypothesised as to whether these two conditions may be linked and whether one may predispose or drive the other. But we have now come to the conclusion that these two problems are not directly linked to each other, but that they are both linked to long, poorly maintained feet and therefore can often be seen concurrently.

As with many ailments of racehorses, prevention is often easier than cure and therefore the risk of both of these issues can be reduced by good farriery and foot maintenance. We have three farriers as part of our team at Mark Johnston Racing and their routine farriery is inclusive within the daily training rate. ■



*A horse with a cracked heel*

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The Mark Johnston Racing daily training fee includes:

- Gallop fees; vaccinations; worming; exercise shoes;**
- on-site resident vets; in-house ultrasound scanning;**
- in-house digital X-rays;**
- all referrals including bone scans, surgery, etc;**
- dynamic 'over-ground' endoscopy; routine endoscopy;**
- all medicines and drugs; dental care;**
- vitamins and minerals; swimming; gelding; etc. etc. etc.**

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