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'Bottom-up' cracks

Unlike sand cracks that start in the middle of the dorsal wall, 'bottom-up' cracks start at the ground surface and work their way up the wall. They are caused by either a cavity that has separated the inner hoof from the outer wall or from a mechanical tearing. (Photos 1 & 2).

Cavities

Cavities are created by seedy toe pathogens that digest the inner wall protein. Resolution comes via pathogen removal and then a topical agent applied to kill remaining bugs. Removal of diseased tissue can be done by a horse owner with a small loop knife when the cavity is small (be careful to protect both yourself and the horse from the sharp blade). Large cavity resections need to be carried out by skilled professionals who will use special resecting nippers and loop knife to create a well rounded arch for maximum strength. (Photos 3 & 4)

Tearing

Much like a long human fingernail, a hoof that has a long edge can be torn. Treatment involves stabilizing the torn area while normal tissue can grow back, as well as taking away the long area that was ripped in the first place.

For small tears, it is simply a case of rounding off any leading edges, both from the ground surface but also the dorsal wall. (Photo 5)

Unfortunately, hoof wall tears can be significant events and the hoof may well need to be stabilized, supported and balanced by a bar shoe. (Photo 6)

If a tear penetrates the corium, then infection prevention needs to be employed.

Please note that veterinary assistance should be sought with serious hoof trauma and/or hoof infection.

Coronet damage

Damage to the coronet will result in a crack that will need to grow down with the hoof wall all the way to ground level before it is gone.

Horizontal cracks appear as a result of either coronet band injury or more commonly as a result of abscess exit. (Photo 7)

Weight bearing should be removed from the segment of hoof wall immediately below the breakage. This will hopefully limit the potential spread of ends of the crack further around the dorsal wall.

Vertical cracks are invariably caused by trauma that either slices through or tears apart the very layer of cells that produces hoof wall tubules. (Photo 8)

The important aspect of managing the fall out from a vertical coronet crack is the fact that the outer wall should remain non weight bearing. This will maximize the thickness of the inner wall which in turn helps to 'glue' the outer wall back together. (Photo 9)

Unfortunately some vertical coronet cracks can become a permanent defect in a hoof wall if the coronet is cut through or ripped off (refer to part 3 in the next issue for managing permanent hoof cracks). (Photo 10).