Canker
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Canker has been defined as an anaerobic (grows in the absence of oxygen) infection in the superficial epithelium (the outer layers of cells) of the hoof or chronic proliferative pododermatitis of as yet unknown etiology.

Bacteroides species are involved in Canker. Primarily Fusobacterium, Pseudomonas, Bacteroides, and Spirochetes. (Wilson DG: Equine Canker. In Robinson NE, editor: Current therapy in equine medicine, ed4, Philadelphia, 1997, Saunders.)(Wilson DG: Topical metronidazole in the treatment of equine canker. In Proceedings of the American Association of Equine Practioners, vol 40, Lexington, KY, 2004, AAEP.)(Floyd AE and Mansmann RA: Equine Podiatry, Section III, Chapt 12, p 248, Saunders, 2007)(Canker: hypertrophic pododermatitis - chronic, Vetlexicon Equis ISSN: 2398-2977)(O'Grady SE and Madison JB, 2004 AAEP Convention proceedings, American Association of Equine

Practitioners)(Milner P and Rowley-Neale C: Case report: Surgical treatment of canker of a horse's foot, UK Vet - Vol 16 May 2011).

The bacteria associated with canker causes abnormal keratin production, or overgrowth of the horn. The excess proliferation occurs underneath the horn, as the infection spreads throughout the epithelium.

The etiology of canker still remains elusive. The mystery of canker is the cause. It involves a very strict anaerobic process and seems to have multi-factorial pathogenesis.

While thrush is an aerobic necrotic process, canker is a hypertrophic (vegetative growth) pododermatitis.

Research has also shown that bovine papillomavirus (BPV) might also be involved in causing canker. Researchers have documented the existence of BPV in hoof canker in recent research, but it does not always show up in tests. These findings suggest that the observed presence of BPV in canker affected horses is not coincidental but indicative of an active contribution to hoof canker disease. The use of antivirals and/or immune modulators may help improving canker therapy. (Consistent detection of bovine papillomavirus in lesions, intact skin and peripheral blood mononuclear cells of horses affected by hoof canker. EQUINE VETERINARY JOURNAL Equine vet. J. (2011) 43 (2) 202-209.)

Canker has a very different appearance and foul odor that is not confused with other infections.

It's sometimes confused with thrush in the very early stage.

Think of Thrush as a loss of tissue and Canker as a proliferation of tissue and you will see the differences.

Biopsies are an absolute way to identify although most can be unrewarding as a typically they yield a variety of organisms, both aerobic and anaerobic.

Visual recognition is the most common identification and diagnosis manner. The canker will look like papillary growth or cauliflower like growth.

There will no longer be a clear demarcation between sensitive and horny frog.

The presence of lameness frequently indicates that the disease involves more than the superficial horny frog and warrants an aggressive approach to resolving the problem.

Canker Treatment

There are several noted Canker Treatment options that are used by themselves or in conjunction with another. They are: Topical Therapies, Debridement, Cryotherapy (Liquid Nitrogen), and Cisplatin Chemotherapy.

There is no medicine that has cured canker if superficial debridement is not performed.

Treatment consists of thorough careful debridement of the affected tissue followed by a regimen of topical therapy applied daily and continued until the disease is resolved.

To debride the affected tissue, the horse can be placed under general anesthesia or regional anesthesia can be used with the horse standing. The horse's foot is trimmed and prepared for shoeing if necessary.

The use of a tourniquet is essential in more severe cases since hypertrophic corium bleeds excessively when trimmed.

All diseased material should be removed trying to avoid destroying horn generating tissue.

If all Cankerous material IS NOT removed, it will grow back with a vengeance.

Debridement can be performed in two ways – with an electric cautery with the horse under general anesthesia or with a sharp hoof knife and a scalpel blade.

All abnormal tissue is removed down to normal corium.

A clear demarcation is not always visible between normal and abnormal tissue. It is this reason that one needs to learn to palpate the differences in texture between normal tissue and disease cankerous tissue.

Try not to remove excessive amounts of corium if possible as this will retard cornification after debridement and decrease quality of new sole being produced.

Cryotherapy to freeze the area or for follow-up in 2-4 weeks is affective. Freeze the debrided area until the tissue becomes hard (known as hard freeze). Allow the area to thaw and then repeat again. This can be done by the Veterinarian with Dry Ice or with a component coolant (used for electric circuits) spray.

I have seen the best results with just applying a powdered copper sulfate to the debrided area.

Crushed metronidazole tablets is also used but I have not seen it to be nearly as effective.

Solutions of 10% benzoyl peroxide or acetone seems to keep the area damp and I have seen more frequent return of canker.

Later on, “Dry Cow” “Tomorrow” has shown to be affective as well.

The KEY - Keep the hoof Dry, Dry, Dry.

Prognosis is favorable for complete resolution if treatment is instituted early and correctly.

Prognosis goes down when multiple hooves affected and involvement is deeper or into hoof wall, sole and bars.

Prognosis is terminal if bone is affected.

Treatment KEY - DO NOT attempt canker debridement unless you are committed to going all the way. Piss off the Canker and it will return with a vengeance.


MAX PRO
Freeze Spray
Anti-Static
Non Flammable
Freezes Components up to -65°