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Equine Proud Flesh

What is Proud Flesh?

To understand what proud flesh is, it is helpful to first know how the normal healing process works after an injury to the skin. Normal wound healing involves a delicate balance of processes, with the ultimate goal being healthy skin. One key step in wound healing is called granulation, where cell replication fills the wound bed with tissue, which is later covered by skin. Unfortunately, certain steps in the healing process may go unchecked, which can lead to abnormal wound healing and proud flesh.

Proud flesh occurs when the granulation step of wound repair is not properly limited, and the granulation tissue becomes excessive. The result is a non-healing wound that appears as a red, fleshy mass. It may be a single smooth area of excessive tissue in the original wound, or may be multiple mass-like areas. Horses are more prone to proud flesh than other species, and it occurs most commonly on the lower limbs (below the knee or hock). The skin is under high tension in these areas, and movement results in fissures forming in the granulation tissue, which causes chronic inflammation. These areas are also particularly prone to being contaminated, which can lead to infection and more inflammation.

How can proud flesh be prevented?

There are several wound management strategies that may help to prevent the formation of proud flesh. Your veterinarian should always be consulted for deep or extensive wounds, those over joints or tendons, and if proud flesh has already started to develop. Continued inflammation or infection in a wound is an important factor in the development of proud flesh. Wounds should be closely examined for pieces of foreign material like wood or metal, bony fragments, or necrotic (dead) tissue, which could result in a persistently infected wound. Bandaging of wounds should be on a case-by-case basis. Bandaging will help to reduce contamination and infection. However, some studies have shown that bandaging may encourage the development of proud flesh. The effect of

bandages on the prevention of proud flesh may depend more on the dressing directly applied on the wound. Silicone gel dressings are becoming more commonly used, and your veterinarian can instruct you on the use of them. Several over-the-counter ointments and salves are also available that are advertised as proud flesh preventatives. Consult with your veterinarian before using a product you are not familiar with.

How is proud flesh treated?

Proud flesh is often treated most effectively and efficiently by your veterinarian. Generally the first step in managing these cases is determining whether there is any infectious or inflammatory component. This may involve radiographs or ultrasound to check for any foreign bodies or bony fragments. If there is no infection, some veterinarians may treat the area topically with steroids to reduce the inflammatory response. In many cases, the most effective way to deal with the excess granulation tissue is to surgically remove it. Since the granulation tissue does not have any nerve supply, this is a basically pain-free procedure and can be done without any anesthesia to the area. In some cases, when the wound is so large that the skin cannot grow over the area, skin grafts may be used. The ultimate goal of surgical intervention is to remove the excessive, non-viable granulation tissue, reduce the inflammatory response. This allows the wound to fill in with normal granulation tissue and cover with normal, healthy skin. Proper wound management and early treatment when proud flesh does occur are key in efficient and successful wound repair.



An example of granulation tissue and proud flesh in a wound on the back of the right knee.