

# Swamp Cancer

## prevention and treatment

By Dr Linda Dillenbeck BVSc, WestVETS

Contrary to what the common name may lead you to believe, swamp cancer is not a cancer, but is caused by an aquatic fungus. The disease is called Pythiosis and is caused by the organism *Pythium insidiosum*.

It is a plant parasite that causes an infection of the skin and can quickly cause large lesions with devastating consequences. It normally lives on water vegetation or organic debris in tropical and sub-tropical climates. Other common names are "summer sores" and "phycomycosis".

Infection is strongly linked with exposure to contaminated still fresh water, such as dams, lakes, swamps and muddy or flooded conditions. A break in the skin is often required for infection, which may be from a wound or from fly or insect bites.

### How do I know if my horse has swamp cancer?

The lesions are commonly found on the legs, under the belly or chest, but can also be found on the neck and face. They first appear as circular, ulcerative or granulomatous lesions that do not heal and they often contain small yellow-grey gritty masses commonly called "cunkers".

The lesions can become large very quickly as the fungus rapidly invades the tissue. The lesions are often quite itchy and the horse will often lick or rub it, which will make the area bleed.

Long-standing lesions may invade to local lymph nodes and may rarely spread to internal organs. It is uncommon for the fungus to invade important structures, such as bone, tendons or ligaments, joints or tendon sheaths. However, lesions located over these areas can make treatment difficult.

A rapidly expanding, granulomatous, pruritic draining lesion with cunkers is highly suggestive of this disease. However, it may also look like an invasive squamous cell carcinoma, cutaneous habronemiasis, sarcoïd, blastomycosis, bacterial granulomata or exuberant granulation tissue (proud flesh).

Therefore, examination of a biopsy sample is required for diagnosis. A biopsy sample may be sent off before surgical removal, or if the location is difficult or unsafe to biopsy then the whole mass is removed under a general anaesthetic and a sample of it is sent to the laboratory.

### Can it be treated?

Treatment is difficult and successful treatment relies on early detection. Topical treatments, such as creams, ointments or sprays, used on their own are almost always unsuccessful. There are some cases that respond well to systemic treatment and using a custom-made vaccine. However, many cases require radical surgical excision.

Surgical excision is usually performed under general anaesthesia and the wound is left open to heal. Lesions over a joint, tendon or ligament or tendon sheath can

be very difficult to remove completely by surgical excision. Depending on the size and location of the lesion, surgical removal is followed by topical and/or systemic antifungal treatments. Repeated surgical excisions may be required for recurring lesions.

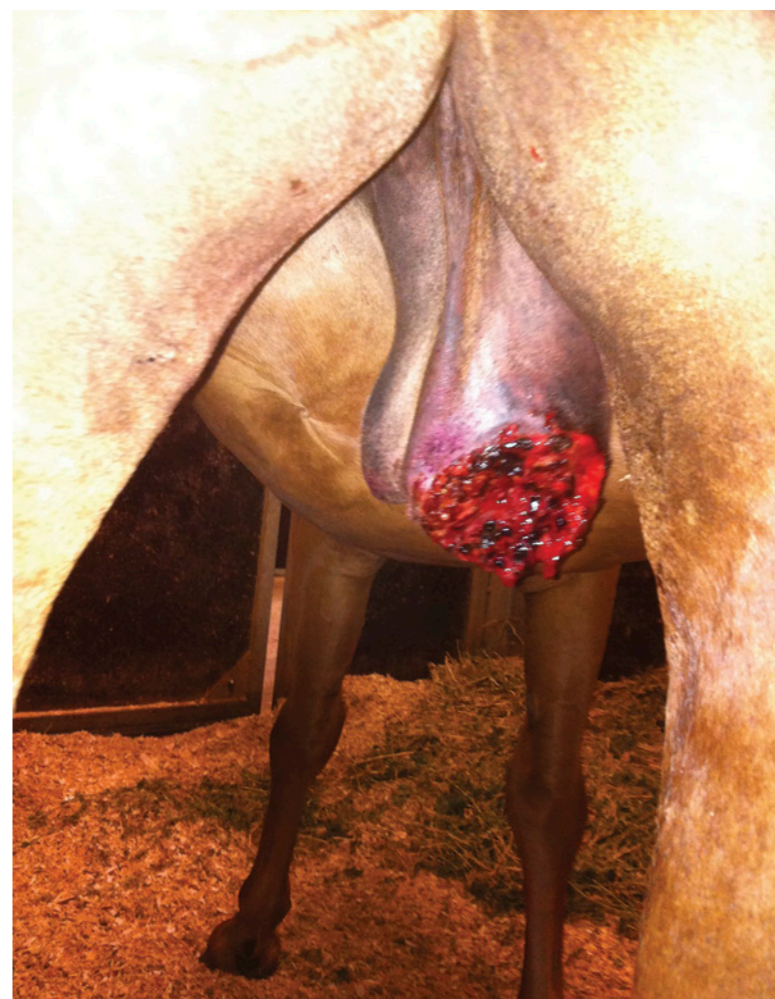
### Can I prevent infection?

*Pythium insidiosum* is an environmental organism and is thus difficult to avoid. Preventing infection mainly involves avoiding dams, swamps and muddy and flooded areas by fencing these areas off or moving paddocks.

Provide your horse with a water trough or bucket so that they do not need to stand in water to drink. This will also help reduce the incident of foot abscesses and greasy heel.

Any non-healing wound should be examined by a veterinarian as soon as possible as early detection and treatment of Pythiosis or any other disease process is vital for a successful result.

**About the Author:** *Linda Dillenbeck, BVSc, is a veterinarian at WestVETS in Anstead. She graduated from the University of Sydney in 2012 and then completed a 12 month internship at Agnes Banks Equine Clinic in New South Wales. This was followed by a year in private equine practice in New South Wales before making the move to Queensland. Linda is interested in all aspects of veterinary medicine with a focus on equine practice. She has particular interests in diagnostic imaging and equine lameness.*



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