



Horse Care

Cancer In Horses

by HEATHER SMITH THOMAS

Cancer is an abnormal growth of cells that multiply without any particular arrangement or control, creating a tumor. Benign growths tend to enlarge slowly, and rarely come back if removed. Malignant growth is usually more rapid and tends to spread to neighboring tissues or invade the blood or lymph system and travel to other parts of the body.

Many equine cancers can be treated successfully if detected early. More than half the cancers in horses originate in skin tissue and can be controlled if discovered and treated. Yvonne Elce, DVM, Dip ACVS, the Large Animal Surgeon at North Carolina State University, says that recognizing them early usually means a good prognosis, since horse tumors don't metastasize (spread) as readily as human cancers.

"There are three types of skin cancer in horses that are very common: melanoma, squamous cell carcinoma and sarcoid. Horses don't have much internal organ cancer; it's fairly uncommon. They can, however, get tumors in their sinuses, and can get intestinal tumors (lymphoma). The latter are usually only diagnosed after a horse has been chronically losing weight or is dull and depressed, but these are rare," she says. Sometimes they are only diagnosed post-mortem after the horse dies or is euthanized, as in the case of an elderly horse who is going downhill physically.

Sinus Tumors

"Tumors in the sinus cavities are fairly common in older horses. Things to look for include nasal discharge or small swelling between the eyes or right in front of an eye. The tumors are easier to diagnose at an equine hospital where they can take skull radiographs or scope the sinuses," says Elce. Similar symptoms can be caused by a tooth root problem in an older horse, or a benign cyst, so you need a proper diagnosis.



An example of a squamous cell carcinoma skin cancer of the third eyelid.

"If a horse has a nasal discharge the vet may try antibiotics. If it's a simple sinus infection, that should clear it up. The thing that should trigger a more involved workup is if you treat the horse with antibiotics for two weeks and it got better, only to recur again in a few days after the horse is off the antibiotics. This usually means there's a tumor," she explains.

Sinus tumors can be treated using surgical incision through a bone flap into the sinus to remove the tumor. "They can also be treated with radiation therapy, but only a few veterinary schools can do radiation for horses. These include North Carolina State University, Ohio State University and possibly Auburn University. The cost for surgery is generally around \$2,000 to \$3,000 and radiation treatment is usually about \$4,000 to \$5,000."

Melanoma

This type of skin cancer can occur in any dark-skinned horse but is most common in gray horses. A high percentage of gray horses over 15 years old develop melanomas. They may appear any time after age four or five, and growths that appear on a relatively young horse are more likely to become malignant more quickly than those that appear on older horses.

"These growths are often an obvious black mass or may grow under the skin—where you can't tell what color they are; you just see or feel a lump. The most common locations for melanoma are under the base of the tail or around the anus or vulva, or the sheath or penis, and these are usually black lumps. Sometimes the growths occur right behind the jaw or along the neck, and these are usually lumps under normal-looking skin and hair," says Elce.

"If it's a small lump that doesn't grow, check it regularly. If it does start to grow (and interfere with function, such as ability to defecate), it can be surgically removed. These will eventually spread, however, so if the horse has a lot of them and they get very large, they can be serious." Small tumors that grow very slowly are less likely to metastasize.

"If they start to grow, they should be removed. The earlier they are cut out, the easier it is, and less traumatic for the horse. They can often be removed just using sedation and local anesthetic rather than having to anesthetize the horse. It's better to do small surgeries every few years than let growths get to the point where it's difficult to remove them. Melanomas usually don't grow back in the area where

Continued on page 76



Horse Care Cont'd.

you cut them out, but the horse may get other lumps in different locations,” explains Elce. They can be removed by cutting them out or by freezing them.

Good results are sometimes obtained using cimetidine, one of the drugs used for human digestive tract ulcers. Another thing that’s been tried is a vaccine. “Researchers at the University of California at Davis have been working on this for several years. I don’t think they have it perfected yet, but it may be something we can hopefully use in the near future.”

Squamous Cell Carcinoma

This type of skin cancer is usually quite visible. “It often appears around the anus or genitalia, or around the eyes or eyelids,” says Elce. It is most common in unpigmented skin, where there’s little hair covering—such as under the tail, around the mouth or on the sheath. Cancer of the eyelid is common in Appaloosas, Paints, Pintos or any horses with white faces, large white markings with pink skin around the eye or any horse with light skin. Tumors around the eyeball are common in sunny regions; intense sunlight irritates the eyes. Unpigmented skin has little protection against the harmful effects of ultraviolet rays.

Cancer of the third eyelid can spread to surrounding tissues and may necessitate removal of the eye to save the horse. “But if it’s caught while it’s small, removal of the growth (and part of the third eyelid to make sure the entire growth is removed) can be very successful, providing a long-term resolution,” says Elce.

The growths often occur on the third eyelid or on the lower eyelid’s inner surface. They may appear as a single raised bump or a raw surface that looks like a runny sore. A bump or red area is not always cancer, but if it becomes larger, redder or more irritated, the horse should receive immediate veterinary attention.



A case of a melanoma skin cancer under the tail of a horse.

This type of cancer continues to grow and can spread to nearby tissues, eventually killing the horse unless removed. Squamous cell carcinoma is more prone to spreading than melanoma, so it’s important to catch it early. A common procedure is the surgical removal of the growth and surrounding areas to make sure all cancer cells are removed. Other methods include freezing or burning.

“If it gets bigger than can be readily removed, the horse can be treated with an anti-inflammatory drug. The one we use for treating cancer is piroxicam. It can be given as a pill, once a day. There is a generic form that’s quite cheap (about eight to 10 cents per day). This is fairly new, but it can be used as the sole treatment for small tumors or as follow-up after a large tumor has been cut out and there might be cancer cells left behind,” says Elce. In those cases the drug is used to prevent recurrence of the cancer because it inhibits the growth of cancer cells.

“There are side effects when using bute, banamine or piroxicam in horses; they could potentially cause stomach ulcers or diarrhea from ulcers in the colon (especially with long-term use). So keep an eye on the horse when using these drugs,” she says.

There are also some chemotherapies that can be injected into the tumor to help shrink them. Researchers at UC Davis studied the effectiveness of injecting anti-cancer agents directly into eyelid tumors (a location where you might not want to freeze or burn off the tumor because of risk for damage to the eye).

“Growths that can be the most difficult are the ones on the penis where they might not get noticed when they are small. Smegma (the dirt/debris accumulation in the sheath and on the penis) may keep the area irritated and lead to cancer, so regular sheath cleaning may help prevent cancer. Any time there is chronic irritation, this can predispose the tissue to cancers. Another good thing about regular sheath cleaning is that the penis is being looked at and the owner might notice something abnormal,” she says.

“There is a topical cream used as chemotherapy for the penis, if you catch it early. You just smear it on, to get rid of small tumors. This cream can be used once every two weeks, for a couple months. When you catch this type of cancer early there are some very good options. The times we get into trouble are when all of a sudden we find a big tumor because we haven’t looked at the penis in awhile,” she says. By then, even with aggressive surgery, there is more chance for it to come back again because there may be a few cancer cells left in the surrounding tissues.

Regular inspection of potential locations is very important, especially in horses 10 years old or older, to check for lumps and bumps. “If the horse gets a tumor on

Continued on page 78



Horse Care Cont'd.

the penis, you may notice a bad smell. The tumor becomes nasty and gets an infection around it. If there is a smell or discharge or a lump that doesn't look right when the penis is dropped during urination, have it checked. If a horse gets a tumor on the eyelid or third eyelid, often the first thing you'll see is a little bit of discharge (runny eye) or a small lump in the corner of the eye," Elce adds.

If you catch it early, it can be successfully treated for a fraction of the cost of treating a more advanced tumor. "The cream, for instance, is about \$160 for a tube, which will last for the two months of treatment. And piroxicam is also cheap. But once a tumor gets large, chances for success go down and expense of treatment (surgery, etc.) goes up," she says. So even if the horse is elderly, it's worth being aggressive early on, because this may give him several more years of good life.

Sarcoid Tumors

Sarcoids don't usually spread internally; they don't travel through the bloodstream to other parts of the body. If not removed, however, the tumor may become so large it disables the horse. "Most people recognize them on the skin, appearing as a big nasty red lump. But they can also be under the skin—just a lump with normal skin over it," says Elce. Some sarcoids develop from a wound or break in the skin (and may be caused by a virus); the tumor starts out looking

like proud flesh but continues to grow. It may look like a warty area, or an ulcerated tumor that weeps and bleeds. Some grow larger than a cauliflower.

"There are two forms of sarcoid. One is a flat, hairless area. As long as it doesn't get disturbed, it may just stay that way. If it becomes injured or cut, it may change into the more aggressive form—a big, uncontrolled mass that looks like proud flesh only worse. Sarcoids often grow in areas that are repeatedly injured or rubbed," says Elce.

The cause of a sarcoid may be a combination of a virus and genetic susceptibility. "There's a difference in the way horses react. A lot of horses have the virus, but only some will develop sarcoid. For instance, Quarter Horses are very prone to sarcoid, and you hardly ever see it in a Standardbred, so there is obviously some genetic predisposition," she says.

"If you remove them surgically, about 50 percent of them will grow right back. So various treatments are used. You can inject them with chemotherapy, or use a laser to remove them, or freezing. This cuts off most of the growth and kills the cells underneath, with less risk for regrowth," she explains. The entire tumor and all nearby cells must be removed or killed or the growth will usually come back in a larger and more stubborn form.

"The University of Minnesota vet school is working with a cream that is used for human genital warts, which are also caused by a virus. This cream (Aldara) contains a drug that fights the virus and abnormal cells, and works well for sarcoid," concludes Elce. ■