

## The kindest cut of all

Before & After, Simple Surgery Is The Kindest Cut of All

Ken Marcella, D.V.M.

Think seriously and extensively about letting a male horse remain entire. Think especially seriously about owning a breeding stallion.

Most veterinarians and breed associations advise that only the best animals should be kept for breeding purposes. Adequate facilities and training are usual prerequisites to correctly handling a stud. Some stallions can be worked and ridden like other horses, but most exhibit more aggressive behavior and can be unpredictable. Stallions are often kept by themselves because they tend to be dominant over mares and geldings, and fights often occur unless they are separated. This necessary separation is the most difficult thing for animals that normally live in herds.

When your cute little colt becomes a pawing, nipping, 800-pound collection of testosterone, it's time to consider the "change of life." Castration is one of the most common surgical procedures performed in equine medicine.

Castrating at an early age makes sense because young colts are easy to handle, the testicles are smaller and the incision can be sutured closed. That means less swelling and a resultantly good cosmetic appearance. Horses castrated in their weanling year do not develop some of the musculature and neck and facial features associated with stallions. These early geldings keep finer features, thinner necks and lighter muscle mass, though they can grow taller than they might if left entire.

Many castrations are performed on colts between one and two years old, and due to the larger size of the testicles, the incisions must remain open. Since open incisions are more susceptible to fly irritation, spring and fall are the preferred times of the year, before or after fly season. (In general, avoid extremes in weather because they slow healing and can add to post-surgical complications.)

Veterinarians use two castration techniques. "Up" castrations are done with the tranquilized horse standing. Additional anesthetic is injected into the nerves of the testicular cords. The surgeon stands near the horse, leans over and removes the testicle using a special piece of equipment that cuts the cord, crimps and seals the blood vessel and removes the testicle.

Horses are given a short-acting general anesthetic for "down"

castrations. The veterinarian usually ties up one of the horse's hind legs and performs the surgery while kneeling over the prone animal.

Each approach has its advantages and disadvantages and owners should discuss the choices with their veterinarian. Neither technique is universally better than the other.

A new technique using a clamp-like device applied to the testicular cord is being tested at the University of Georgia Veterinary School. It is attached to a regular power drill. The drill spins the clamp, which twists the cord until it breaks. This technique effectively seals off the blood vessels. There seems to be less swelling than in the standard procedures, with no increase in complications.

Horses are generally born with their testicles in the scrotal sac or they descend through a small hole or "ring" in the belly and are in the sac shortly after birth. Occasionally, one or both testicles will remain in the abdomen or only partially emerge through the ring. These testicles may drop down at a later date; some never descend.

A horse with undescended testicles is called a cryptorchid, and general anesthesia and surgical exploration of the abdomen is necessary to castrate successfully. New laproscopic techniques

utilize a long, thin camera and long, thin instruments inserted into small incisions in the belly wall to perform the removal of these retained testicles. This saves the horse from the stress of opening the abdomen - and the resultant longer recovery.

Proper planning and care can increase the chances of a successful procedure.

There are many different terms for horses that have testicles in other locations. Colts with testicles through the ring but not in the sac are called ridgelings or rigs. A horse with a testicle through the ring and under the skin of the upper thigh or groin is called a high-flanker.

If the testicle is not completely removed, the horse will look like a gelding but may still behave like a stallion. Small remnants of certain testicular tissue can still produce the male hormone testosterone and, while the resulting "gelding" cannot reproduce, it may exhibit many typical stallion-like behaviors. Such an improperly castrated horse is often called proud-cut.

Improper removal of all the testicles is not the only possible complication of equine castration. In fact, there are many potential problems related to this simple procedure. Castration

in the horse is one of the most common causes of litigation against equine veterinarians.

Occasionally, the ring that the testicle drops through to get into the scrotum is abnormally large. Once the testicle is removed there is nothing blocking this hole and pieces of intestines can drop into the hole and out the newly made castration incision.

There are large blood vessels associated with the testicles and bleeding can be a serious complication. Because the castration incision must be left open to drain serum, except in very young colts, infection is another common complication.

But for all these potential problems, thousands of castrations are done each year, and most are uneventful. In fact, a routine castration can seem so simple and uncomplicated that it is sometimes easy to forget that problems can occur. Proper planning, care and attention to surgical technique can increase the chances that the procedure will be successful.

Horses are usually turned out in a small paddock following castration and allowed to walk slowly as their anesthetic wears off. Incisions should be monitored and kept clean and free of flies. Cold water hosing may be recommended to help keep the wounds open and draining.

It takes time for the levels of testosterone in the system to drop. Some geldings may take a month or more before showing a decrease in stallion-like behavior.