**Spotting Surgical Colic**

Surgical colics are much different. In most cases there is an immediate difference in the horse’s eye that most surgeons recognize immediately. These horses don’t respond to pain medications, and the nasogastric tubing and rectal exam provide little, if any, relief. The pain is constant and can be severe or subdued, but not completely relieved with painkillers. In very obvious cases, the horses are throwing themselves down with pain, rolling and won’t get up, even with drugs on board. The onset of clinical signs is usually rapid, and the pain typically increases quickly. Getting into the trailer and to the nearest equine hospital, before the intestines become too damaged and the horse becomes too overcome with pain, is critical.

The causes of surgical colics vary, but the common denominator is a blockage of the intestines that can’t resolve without opening up the horse’s abdomen and fixing the problem.

**A Colic Surgery Candidate**

Surgical colics have very high heart rates, often above 60 beats per minute and can be over a 100 bpm. The respiration rate is usually elevated, and fever (101.5 degrees F and above) is sometimes present. These horses usually show signs of pain, such as pawing or trying to lie down. They typically have no gut sounds, and their gums are an abnormal color. The gums can range from cyanotic to bright red. Cyanosis is a grayish-blue color that indicates decreased oxygen supply. Bright red gums indicate toxins in the blood that are causing the blood to clot and slug in the small capillaries. A variant of red gums is a toxin line—a red line in the gums over the teeth—that is usually the first sign of toxin absorption.

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**Surgical Colics**
*Colon torsion or "twisted gut”* is one of the most common, and most dramatic, types of surgical colics. The large colon is separated into sections folded into left and right, upper and lower quadrants. The left quadrants are not attached to the body wall; these parts of the large colon are free moving in the abdomen and can twist 180 to 360 degrees causing a complete blockage. Not only is gas and food material trapped inside the twisted gut, but blood supply is cut off, causing damage or death to the intestine. As the gut dies, toxins are released into the body, causing severe illness or even death. For some horses, pain medication helps keep them quiet for approximately an hour. But some horses are so painful that the drugs seem to help very little.

*Strangulating lipomas* and *epiploic foramen entrapment* are situations where blood supply to the small intestine is completely cut off and the intestine dies. When a lipoma (fatty tumor) develops, it is connected to the intestines by a thin strand of tissue. This strand of tissue acts like a string and the lipoma acts like a weight, wrapping around a section of small intestine then tightening and cutting off the intestine completely.

Epiploic foramen entrapments occur when a section of small intestine falls into the epiploic foramen—a triangular window created by the body wall, the liver and the vena cava (large abdominal vein carrying blood back to the heart). The trapped small intestine gets irritated from the partial obstruction and swells, getting heavier and pulling more intestine through the window, eventually causing complete strangulation of the small intestine.

Both of these types of colic are very painful; the intestines die from lack of blood supply and toxins are released into the body. Horses with these types of colic are very sick. Often it’s difficult to get them to stay up, and they are minimally responsive to pain medications.

*Enteroliths,* commonly called intestinal stones, can cause colic and need to be removed surgically. These stones develop inside the large intestine and can get so big that they either irritate the colon or get stuck within the colon, potentially cutting off circulation to the intestine. Without proper circulation, the area of intestine around the stone dies and then ruptures, releasing intestinal contents into the abdomen and a massive amount of toxins into the body, which causes death.

The above are by far the most dramatic cases, but there are also mild to moderate displacements of the large colon, adhesions, scar tissue constrictions, parasite migration, blood clots and more, that can create a surgical colic.

**Surgical Status**Time is of the essence in a situation where intestines are dying, so the sooner the horse gets to surgery, the better his chances of survival. A vet’s rule of thumb is that if a horse has to be medicated more than three times within a one- to two-hour period, he should be sent to a surgical facility for evaluation.

Some horses are so painful on presentation at the hospital that there is no question surgery is needed, but others may have varying degrees of symptoms so more diagnostic tests are performed.

The two most widely used tests done at the hospital, invaluable for determining the surgical status of a colic, are the abdominal tap and the abdominal ultrasound. The abdominal tap involves obtaining a sample of peritoneal fluid (the fluid that surrounds the abdominal organs) to check for elevated protein and white cells. Normally peritoneal fluid is a clear amber color, but in very sick horses it can become cloudy, red-tinged, or in the case of a ruptured intestine, the fluid appears green with food particles within.

Abdominal ultrasound allows the surgeon to evaluate the small and large intestines. The ultrasound can also help determine the motility of the gut by actually looking at the intestines move.

If an intestinal stone is suspected, then abdominal radiographs (X-rays of the belly) are done. Since the possibility of rupture is always present, if an intestinal stone is seen on abdominal radiographs, surgery is always warranted, even if the horse is pain free.

The call to go to surgery is usually determined quickly once all of the above factors are put together. For the horses that are not as obvious, often there is a period of monitoring at the hospital to see if the clinical signs resolve or worsen. If a horse doesn’t appear painful but has abnormal ultrasound or abdominal tap findings, surgery is usually recommended in order to help save the intestine from further damage. There are some horses that may not be good surgical candidates and are better served by humane euthanasia, such as those that have suffered for days and have consequently experienced significant damage. Horses severely compromised by diseases such as laminitis, liver disease, kidney disease or Cushing’s disease, might not be surgical candidates either. But even Cushing’s horses can do well if they are somewhat stable before surgery.