

# Surgical Colic

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Colic is one of the most commonly encountered equine emergencies. Colic is defined as abdominal pain and most commonly, the pain arises from the gastrointestinal tract, but the pain is merely a clinical sign, not a diagnosis. Most colic episodes resolve spontaneously, or with medical management, but in approximately 10% of cases, surgical intervention is required in order to save the horse's life. In these cases early recognition and transportation to a surgical facility is vital in maximising the chance of a successful outcome. There are several diagnostic tests which aid the veterinary surgeon in making this decision. These will be discussed throughout this article.

## History

Being able to give your vet an accurate and relevant history can help to determine the cause of the colic episode. It can be difficult to know the duration of colic in some cases, especially if found in the morning. An accurate record of recent dental treatment along with worming regimes can provide important information. In cases where episodes are occurring regularly it is important to note any patterns such as increasing frequency, increasing duration or severity.

## Clinical Examination

The initial examination should include

heart and respiratory rates, hydration status, the gum colour, temperature, gastrointestinal tract movement and whether the horse or pony appears bloated. In some instances the horse is so painful this is not possible without administering sedation. Once the baseline parameters are noted, a rectal examination is normally performed. This may not be advocated in all circumstances i.e. in small ponies where damage to the rectum could occur. Sometimes an antispasmodic drug is given at this stage to stop the horse straining. In many mild cases of colic there are no abnormalities to find on rectal examination and even in some surgical cases there may be nothing abnormal to palpate as the lesion may be out of reach. Frequently palpated abnormalities indicative of a possible surgical lesion are: distended loops of small intestine, a gas filled large colon, or tight taenial bands (indicating a displacement). As the gastrointestinal tract is a dynamic body system, the rectal findings can change very rapidly. While the rectal examination can give the veterinary surgeon an idea of what is causing the signs of colic other diagnostic tests may also be necessary.

## Nasogastric Intubation

This procedure is not carried out in all cases of colic but it is performed



The induction box and entrance to theatre

where the horse is moderately to severely painful or the heart rate is elevated. This involves passing a tube up the horse's nose and down into the stomach, to check for reflux. Reflux is an accumulation of gastric contents within the stomach, normally caused by an obstruction within the small intestine such as a twist or by a functional inability for the intestine to move, such as grass sickness. Normally greater than two litres of reflux is classed as significant and an indicator that there may be a surgical lesion. As horses cannot be sick, if we did not perform this procedure and prevent the stomach from swelling, rupture of the stomach could occur. In addition, decompressing the stomach usually provides pain relief.

## Abdominocentesis

In cases where there is a suspicion of a surgical lesion, an abdominocentesis (also known as a belly tap) can be performed on the yard or at a clinic. A needle is placed through the lowest part of the abdominal wall into the abdominal cavity to acquire a sample of the fluid that normally lubricates the gastrointestinal system. As well as assessing volume of fluid, the colour, turbidity and protein levels are analysed. If the protein levels are high, the sample is cloudy or blood tinged this is often indicative of a surgical lesion.



Distended small intestine at surgery

## Ultrasonography

Ultrasound is a useful tool when diagnosing colic. It can be performed transcutaneously, through the skin or transrectally, through the rectal wall. Often the horse will have to be clipped in order to obtain a clear picture. Ultrasound can be useful when acquiring the belly tap. It allows the veterinary surgeon to assess the motility of the intestinal tract and look for distension of the guts and thickening of the intestinal lining, which could be potential signs of a surgical lesion.

## Radiography

Taking x-rays to diagnose colic in an adult horse is not usually helpful due to the size of the horse. It is, however, indispensable in foals where the diameter

of their abdomen is much less and diagnostic pictures are acquired more easily. Distension of the small intestine is easily visible.

In conclusion, there is no one technique that can diagnose a surgical lesion; there is a jigsaw puzzle to fit together. The most important thing is early recognition and referral to a surgical facility.

## Common Reasons for Surgery

- Strangulating lipoma
- Epiploric foramen entrapment
- Dorsal displacement of the large colon (left and right)
- Mesenteric rents
- Large colon torsion
- High worm burdens



X-ray of a foal's abdomen, note the large gas filled loops of small intestine



Ultrasound of distended small intestine, note the black circles at the top of the picture