Taking terror out of tackling colic

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Practice Notes

AS a new graduate, I was terrified of encountering my first colicking horse. After speaking to experienced vets who only do a small proportion of equine work I now realise this sentiment is not unique.

Colic has a large range of outcomes and a missed diagnosis may end with very angry owners and a dead horse. At the time of writing, we have experienced a rush of medical and surgical colics at our practice, which has moved me to describe a basic approach to gastrointestinal colics.

It is important to remember colic can present in a variety of ways – our last surgical case had mild colic symptoms together with rapid reversing into the nearest wall.

Initial assessment

After taking a history, the initial clinical assessment mostly concentrates on the horse's mucous membranes, heart rate and gut noises.

Most clinicians auscultate borborygmi in the upper and lower quadrants on the left and right sides. When assessing borborygmi, it is important to distinguish between motile gut and gassy "tinkling" that may have no true forward motility. Rarely, a horse is in so much pain that obtaining a heart rate is of primary concern – after this, sedation can be used for horse and handler safety[1].

Sometimes the history, symptoms and initial examination provide enough information to proceed with treatment. Other times, further assessment and investigation will be required.

A rectal examination is usually the next investigative step. As clinicians become more experienced, they often do fewer rectal examinations at the first visit because they are more confident in their clinical assessment. The owner should always be informed of the risks involved before a rectal examination. New evidence shows that use of 20mg/ml hyoscine butylbromide prior to rectal examination will reduce straining and, therefore, should reduce the incidence of rectal tears and facilitate better abdominal assessment[2]. It is prudent to avoid this medication if an impaction is suspected.

Mild spasmodic and medical colics

The most common colic seen in first opinion practice is a mild spasmodic colic that is readily settled with simple medical treatment. Dietary or management changes are often implicated in these cases.

These cases typically have mild to moderately increased heart rates and increased gut sounds, although some horses present with severe symptoms. Often, the symptoms will have a spasmodic nature; however, leave these cases without medicating them and you'll probably have to return as soon as you get home.

If there is an obvious reason for the colic, the horse has recently passed normal faeces and the clinical symptoms are mild, many vets will not examine these horses rectally as they feel the risk of rectal tearing is too great.

Medical treatment usually includes intravenous phenylbutazone together with 20mg/ml hyoscine. Most clinicians routinely use this form of hyoscine rather than compositum as it reduces the use of concurrent NSAIDs. As hyoscine is a very short acting anti-spasmodic, concurrent use of phenylbutazone often provides analgesia until all symptoms have passed. Usually, re-examination will only be required if the underlying cause of colic is more serious or non-resolving.

Impaction colics

Impactions are commonly associated with the pelvic flexure or caecum. Pelvic flexure impactions typically show reduced or absent borborygmi in the left abdominal quadrants. They are commonly associated with inactivity and a drier diet, although they are seen in stabled horses without any identifiable management changes.

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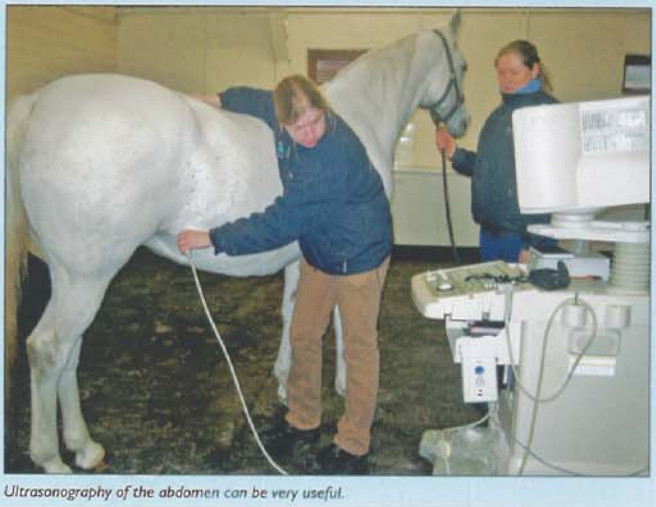

Ultrasonography of the abdomen can be very useful.

Careful auscultation of gut sounds is important in colic cases.

Often, the history is most useful as the horse shows gradual lethargy, lying down or a reduced appetite in the early stages. Latterly, reduced faecal output, increased faecal firmness and overt colic symptoms will develop. These cases often only have mildly increased heart rates, yet often have some gut noise and faecal output.

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Medical management remains the treatment of choice. Usually, pain is successfully managed with intravenous phenylbutazone. Hyoscine is often avoided as reducing the gut spasm may slow the movement of ingesta. Debate continues regarding the best rehydration therapy. Electrolytes dissolved in water, administered by nasogastric tube, are easily obtained and economically viable. These rehydrate and soften the impacted ingesta together with promoting colonic motility[3]. Repeated use of tap water alone may result in electrolyte imbalances[3].

Some clinicians prefer liquid paraffin, either alone or combined with warm water. Theoretically, this lubricates the ingesta to help onward transit, although occasionally the liquid paraffin will squeeze around the mass without actually moving it. There does not appear to be any evidence that liquid paraffin is beneficial[4] and it is messy to work with. Magnesium sulphate (500g) dissolved in water and administered by nasogastric tube is also used, although some clinicians save this for particularly recalcitrant cases as there is a risk of inducing colitis[1].

Whatever fluids are used, cases frequently require multiple intubations before resolution. Larger impactions may be better managed in a hospital using continuous fluids via an indwelling nasogastric tube. Intravenous fluid therapy may also be used in an attempt to overhydrate the horse and increase gut secretions[3]. It seems that small amounts of fibrous food may stimulate intestinal motility[3].

As the impaction moves, some horses may become slightly more painful. However, regular reassessment will help identify colonic displacement or other surgical conditions. As the impaction continues for longer, the colon wall may become oedematous and compromised, so surgical evacuation may be required.

Caecal impactions are rarer and are seen as primary impactions or, more commonly, encountered postanaesthetic.

Usually, rectal palpation reveals the impacted viscera originating from the right upper abdominal quadrant, attached to the body wall. Caecal impactions are often candidates for referral as they may rupture without prior symptoms and surgical exploration and typhlotomy is often advised[5].

Surgical colic

Some colics are obvious candidates for surgical intervention or even euthanasia, but sometimes the decision making process is harder.

Extremely high heart rates and severe symptoms of colic are often worrying, although individual horses have different pain thresholds. Ponies often present with mild symptoms despite severe pathology.

Lack of response to medication can indicate surgical colic. In some surgical colics, symptoms will be exhibited whether the horse is given phenylbutazone or flunixin meglumine and decision making is easy in this situation.

Many cases will not follow this rule so advice remains to avoid flunixin as an initial medication choice, thus helping identification of surgical cases. Occasionally, flunixin may be used if surgical treatment is not a financial or appropriate approach.

If it is suspected that surgery will be required, a rectal examination is vital. Even if no abnormalities are detected, subsequent examinations may identify suspicious changes even if an exact diagnosis is unclear. Positive rectal findings include intestinal distension or tight taenial bands[4]. The horse will often show pain if these abnormalities are palpated.

Nasogastric intubation is a very easy procedure to perform and positive findings can help guide the decision regarding surgery. When passing the tube it is always advisable to warn owners of possible epistaxis – better to have lower expectations. Heavily sedated horses will often have a depressed swallowing reflex, making it harder to pass the tube, but patience will usually overcome this.

Once the tube is passed, it is important to check for gastric reflux before distending the stomach further with fluids[1]. Significant reflux or a dramatic worsening of symptoms shortly after fluid administration may indicate surgical colic. This latter finding may occur when small intestinal lesions prevent fluid passage, resulting in further intestinal distension and pain. Upon intubation, assuming there is no reflux, it is worth administering a fluid and electrolyte mixture as this is usually the limit of yard-based treatment anyway.

Another easy diagnostic test that can help decision making is peritoneal fluid analysis.

After sterile preparation of the ventral midline abdomen, a 1.5in to 2in 20 or 21-gauge

needle is inserted and any fluid is collected in an EDTA tube[1]. Even without laboratory facilities, gross examination of the fluid helps to ascertain the horse's condition[4]. It is possible to puncture gut lumen so if gut contents are collected, it is also important to consider the horse's clinical condition before euthanasia.

Abdominal ultrasonography can be useful, although this is more commonly used in referral institutes. Lack of intestinal motility and gross thickening of intestinal walls can be useful indicators that surgery is required[4]. Biochemistry and haemotology, especially a haematocrit, will be taken prior to surgery. Blood lactate levels are also used in some practices to assess the likely success of surgery.

Referral procedure

Once it is decided referral is required, it is important to contact the appropriate centre. Some owners have very strong views about which centres are acceptable, so do check first.

If the horse's clinical symptoms are manageable with phenylbutazone then it is best to use this, possibly even with alpha-2 agonist sedation, in order to travel the horse safely. Some centres will prefer intravenous flunixin to be given, but this varies so check prior to administration.

In some cases, you will have used every drug you possess in order to get the horse standing and fit to travel. This is acceptable providing the indications for surgery are valid and immediate euthanasia is not required.

If there is significant gastric reflux, the horse may be travelled with an indwelling nasogastric tube to prevent stomach rupture[4]. In most instances, it is better to travel the horse immediately rather than waste valuable time placing an intravenous catheter and administering fluids.

In each referral, it is vital to discuss the findings, medications and actions taken with the next clinician[1]. If possible, a written summary of the examination findings and any treatment instigated is ideal.

Conclusion

Most cases of colic are simple medical colics that rapidly respond to intravenous phenylbutazone and hyoscine. Of the medical colics, it is most important to identify impactions so they can be treated appropriately.

A much smaller percentage of colics will not respond to initial medication and further assessment will be required to assess whether surgery is needed. If any doubt exists, and surgical treatment is a viable option, it is often better to refer the horse earlier rather than later.

References

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