

Anatomic predisposition to strangulated obstructive colic in equine

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In Egypt, donkeys occupied an esteemed position among farm animals as they still play a valuable role in the farmers' work, carrying loads and as a mean of transport. Epidemiological studies on the incidence of strangulated obstructive colic in donkeys revealed the scarcest incidence among equines. This promoted us to look for the anatomy of the related viscera with an aim at finding an answer to the question "why donkeys are seldom affected with strangulated obstructive colic."

Gross anatomical peculiarities which may predispose the horses to strangulated obstructive colic were studied in two groups of healthy euthanized horses and donkeys: a predisposed group comprising 5 horses and a control group comprising 10 donkeys not ordinarily affected by strangulated obstructive colic.

The dimensions of the mesenteric attachments of certain segments of the bowel, commonly considered the seats of troubles i.e. ileocaecal, caecocolic, intercolic and duodenocolic folds, measured and compared between the two groups of animals. The base, height length and width of each structure were measured. The diameter of the greater and lesser curvatures of the stomach and the length of the caecum were also measured. More over the dimensions and location of the stomach and caecum were also studied in both groups of animals.

The present study demonstrates prominent gross anatomical features which could account for the high incidence of strangulated obstructive colic in horses in comparison with that in donkeys.

Horses have ill-developed mesenteric attachments between the caecum, colon and ileum. They have also small sized stomach with lack of any contact with the floor of the abdominal cavity, besides the enormous sized caecum and ascending colon. The well developed voluminous large colon and caecum that lacking the sufficient mesenteric binding attachments could predispose the relevant bowel to anatomic displacements with subsequent strangulation and obstruction upon any factor increasing the mobility of the bowel.

Donkeys have a sequence of identifiable anatomical peculiarities i.e. well developed mesenteric attachments, a comparatively large stomach which could be accessible from the left hypochondrial abdominal floor. Such anatomical features might markedly minimise the risk of strangulated obstructive colic in donkeys.



Abdominocentesis : a simple diagnostic aid in equine colic

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After shaving, aseptic preparation and local anaesthesia, a small stab incision is made on the ventral-most portion of the abdominal wall on the right side near the linea alba. A blunt 15 cm cannula (an elongated teat cannula) is inserted slightly obliquely preventing blood contamination from the skin incision by placing a sterile gauze around the cannula. In practice, peritoneal fluid can be evaluated by gross visual examination. Normally a few millilitres of clear (pale) yellow fluid will be obtained. An increased amount of normal looking fluid is found in early cases of bowel strangulation without ischaemia, or in severe small or large bowel obstipations. If bowel becomes ischaemic and/or inflamed an increased amount of (pale) orange to serosanguinous fluid will be obtained. Puncture of the bowel wall, which seldom happens unless the colon contains sand, reveals a greenish fluid with a smell of digesta. A dark green-brown coloured fluid indicates a ruptured bowel. In preparturient mares the procedure is difficult because of the gravid uterus. Abdominocentesis is easy to perform in practice and is very helpful for diagnosing the acute abdomen.



Evaluation de la malabsorption par le praticien équin.

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La malabsorption est une insuffisance de la digestion et / ou de l'absorption des nutriments par la paroi intestinale. Elle est en général induite par une entérite. Chez le cheval, il est possible d'évaluer de façon sûre la fonction de l'intestin grêle par la mise en oeuvre d'examen complémentaires. Lors de malabsorption le taux d'albumine sanguin est diminué, ce qui ne peut être évalué précisément que par électrophorèse. Le tableau présente les protocoles des tests d'absorption du glucose et d'absorption du xylose. Le test d'absorption du glucose est sensible mais peu spécifique du fait de la révélation de nombreux résultats faussement positifs. En revanche le test d'absorption du xylose est sensible, spécifique mais coûteux.