

Diarrhoea

Diarrhoea is an increase in the volume, fluidity and frequency of droppings and can vary in severity from mild to severe. The horse's large intestine (colon), acts as a fermenting vat containing numerous bacteria and large volumes of fluid for the digestion of fibrous feeds. In most cases of diarrhoea there is disruption of the normal bacterial population in the gut which can impair digestion. In severe cases of diarrhoea the fluid losses can be rapid, leading to marked dehydration and electrolyte losses. Without prompt veterinary treatment diarrhoea can be a life threatening condition.



Conditions

Free faecal water production

Involves passing excess water after a normal dropping, the cause is not well understood, but it is thought to be related to fibre digestion in the colon.

Mild, innocuous diarrhoea

The most common cause for this type of diarrhoea is dietary changes and/or intolerances, such as a changing on to lush pasture. Other causes include worms, bacterial infections and sand ingestion.

Protein-losing enteropathies

These include conditions that cause bowel inflammation, resulting in protein leakage through the gut wall. The most common cause is larval cyathostomiasis (small red worm). The larvae of small red worm hibernate within the gut wall over the winter months and then emerge en masse in the spring, causing severe bowel inflammation and damage. Other conditions that may be associated with diarrhoea include: inflammatory bowel diseases, sand enteritis, non-steroidal anti-inflammatory drug (e.g. 'bute') toxicity and bowel cancer.

Acute, severe colitis

This involves a rapid onset of severe diarrhoea. Causes include bacterial infections e.g. salmonella, severe cyathostomiasis (red worm), antibiotic administration and grain overload.



THE ERUPTION OF SMALL RED WORM LARVAE FROM THE GUT WALL CAN CAUSE SEVERE DIARRHOEA AND WEIGHT LOSS

Clinical signs

A range of signs can be seen depending on the severity of the case. These include:

- softer droppings or increased fluid content of the dropping;
- dribbling of fluid during or following passage of a dropping;
- large volume of watery droppings;
- weight loss;
- colic;
- depression;
- reduced appetite;
- fluid retention in legs or under abdomen;
- reddening of the mucous membranes.

Cases with a severe and sudden onset and those associated with colic, depression or fluid retention can be life threatening and prompt veterinary treatment is essential.

Diagnosis

A full history will be taken including worming history, recent medication, appetite and diet.

A full clinical examination will be conducted to assess the general health of the horse and detect any signs of illness or disease. A dental examination will also indicate any abnormalities that may affect the patient's ability to eat and grind fibre.

A blood sample will normally be taken to assess red and white blood cell levels. Marked anaemia can indicate a disorder involving blood loss. Raised white blood cell levels may be seen with inflammatory conditions or bacterial infections. Protein levels may be reduced in conditions associated with intestinal inflammation.

A dropping sample can also be examined for the presence of worm eggs and larvae, blood and sand. The sample can also be tested for the presence of bacteria that can cause diarrhoea e.g. salmonella species.

A glucose absorption test measures blood glucose levels before and at set intervals following glucose administration by stomach tube. Abnormal results can indicate the presence of intestinal lining disease.

A rectal biopsy involves collecting a sample of the lining of the rectum under sedation and may provide an indication of inflammatory bowel conditions.

Peritoneal fluid (a belly tap) can be collected by inserting a needle in the midline under the belly. Fluid analysis can be useful in identifying intestinal inflammation.

Ultrasound examination of the bowel can be used to assess the wall thickness in various locations.

Gastroscopy/duodenoscopy (scoping) and biopsy of the stomach may be indicated in some cases e.g. stomach ulcers or tumours.



ULTRASONOGRAPHY CAN BE USED TO MEASURE INTESTINAL WALL THICKNESS.

Treatment

Specific treatment will be indicated in cases where a diagnosis is reached.

Fluid therapy

Severe cases of acute diarrhoea will need intensive treatment with intravenous fluids containing electrolytes, to counter the effects of dehydration.

General management for treatment and prevention include:

- high fibre diet using hay as the forage source and removing all carbohydrates;
- the addition of probiotics may be helpful;
- dental examination and treatment;
- worming with moxidectin to treat red worm larvae;
- intestinal protectants e.g. activated charcoal, sucralfate.

Further targeted treatments include:

- codeine - slows down gut movement;
- anti-inflammatory steroids;
- immune-suppressant drugs;
- psyllium fibre/husk;
- trans-faunation – the administration of a slurry of a healthy horse's droppings to repopulate the gut with normal bacteria.



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