

Gastrointestinal bleeding



Carla Asorey Blazquez and Ferran Valls Sanchez, of Dick White Referrals, provide some notes on this common cause of anaemia.

Gastrointestinal bleeding is a common finding in small animal medicine. It may be difficult to notice, as the absence of haematochezia or melena does not rule it out. Diagnosis is sometimes challenging requiring a combination of different diagnostic techniques. Despite the investigations, in many cases, an underlying cause for gastrointestinal ulceration is not found.¹

Abdominal ultrasound

Abdominal ultrasound is a non-invasive procedure that allows the evaluation of all the gastrointestinal tract; however, evaluation of the mucosal integrity is not always possible and ulcers may be missed. In one study, the sensitivity for the visualization of non-perforated ulcers was 65%, while for perforated ulcers it was 86%.² Obviously, this technique does not provide histological samples which may be needed in most cases to diagnose the underlying cause. However, it may be useful to decide the next best step depending on the location of the lesion.

Endoscopy

Endoscopy is the imaging modality of choice for gastroduodenal ulceration as it allows examination of the gastric and duodenal mucosa (Figure 1). It can also

be used to evaluate the colon. Endoscopy is also useful for investigating underlying conditions as samples of the mucosa can be collected in the same procedure; however, it is more invasive than ultrasound and requires general anaesthesia.

As limitations, it is important to bear in mind that endoscopy will provide information of the lesions and integrity of the stomach, proximal small intestine and colon. Therefore, assessment of the rest of the gastrointestinal tract will not be possible when using endoscopy. From a practical point of view, this test requires anaesthesia and has a higher cost.

Video capsule endoscopy

Video capsule endoscopy (VCE) (Figure 2) is a non-invasive diagnostic procedure that allows the evaluation of the stomach, small and large intestine, making it possible to identify mucosal lesions that may not be detected by traditional endoscopy or abdominal ultrasound (Figures 3 and 4). This technique can be performed in a conscious patient thus avoiding the risks involved during general anaesthesia in an unstable anaemic patient.²⁸ However, VCE will not allow sample collection so a definitive diagnosis cannot be achieved. The capsule cannot be used in dogs below 5.5 kg as its safety has not been demonstrated. The cost of using an endoscopic capsule is similar to traditional endoscopy.



FIGURE 1: Endoscopic image of the duodenum of a 10-year-old Jack Russell Terrier with chronic vomiting and diarrhoea and 1 week of melena. Multiple areas of ulceration can be observed.



FIGURE 2: Endoscopic capsule. Size is compared with a 2.5 ml syringe in this image.



FIGURE 3: Image taken with the endoscopic capsule. A gastric ulceration can be seen.


Courtesy of Infinity Medical.



FIGURE 4: Image taken with the endoscopic capsule showing multifocal regions of ulceration within the stomach of a dog.

Courtesy of Infinity Medical.

Occult faecal blood

This is a non-invasive option to further investigate gastrointestinal bleeding. The patient is fed a diet that facilitates the detection of occult blood in the faeces. Meat-free diets administered for at least 3-days prior to sample collection are adequate for this purpose because myoglobin cross reacts with the haemoglobin in the test, leading to false positives.¹⁰ False positives are also common if the patient has been fed with a diet rich in plants with high endogenous peroxidase, like beets, cantaloupe melon, broccoli or cauliflower. This method is less expensive but, if the result is positive, will still require further imaging to investigate the underlying cause of the bleeding. 

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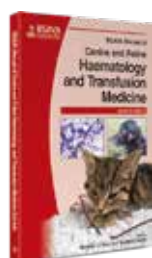
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