

Gastrointestinal Endoscopy in Dogs

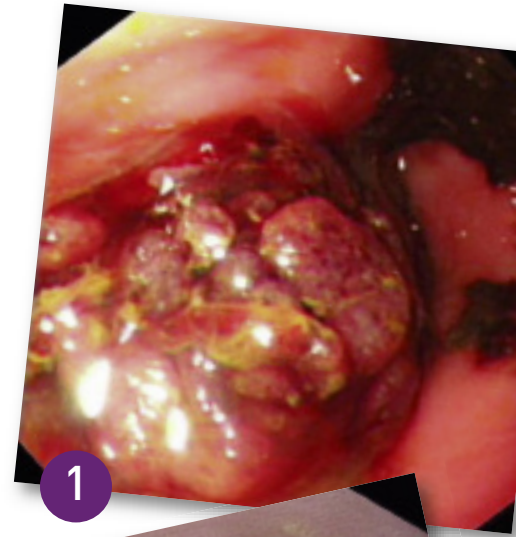
Gastrointestinal endoscopy includes evaluation of the esophagus, stomach, small intestine, and colon; it is frequently performed to definitively diagnose disorders of the gastrointestinal tract. Although many diseases have a typical endoscopic appearance, biopsy specimens obtained from all areas inspected are necessary to make a final histologic diagnosis.

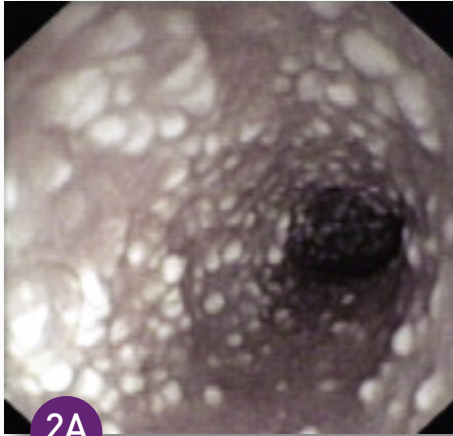
Match the pictures with the signalment and final histologic diagnosis provided. Some will be straightforward, whereas others will be more difficult to determine without the benefit of additional diagnostic tests (ie, blood analysis and ultrasonography). Each histologic diagnosis corresponds with only 1 picture.

See pages 77 and 78 for the answers.

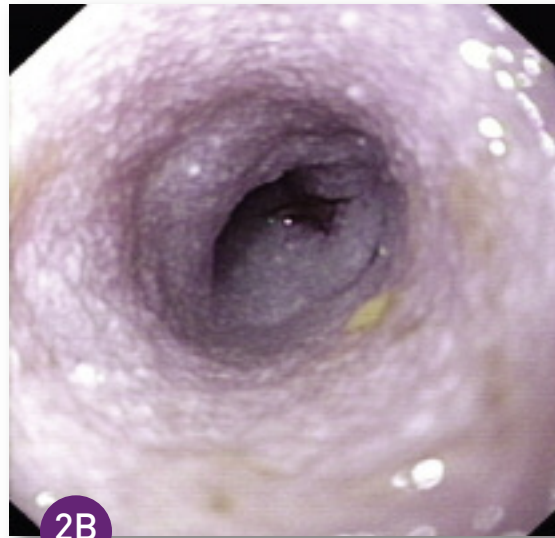
IBD = inflammatory bowel disease

- ___ ADENOCARCINOMA
12-year-old male golden retriever (colonoscopy)
- ___ CECOCOLIC INTUSSUSCEPTION
6-year-old male boxer with chronic large intestinal diarrhea (colonoscopy)
- ___ COLONIC ADENOMATOUS POLYP
8-year-old male German shepherd dog (colonoscopy)
- ___ HISTIOCYTIC SARCOMA
7-year-old spayed female flat-coated retriever (duodenoscopy)
- ___ LYPHANGIECTASIA & SEVERE LYMPHOPLASMATIC INFILTRATION (IBD)
7-year-old spayed female Yorkshire terrier (duodenoscopy)
- ___ MILD LYMPHOPLASMATIC INFILTRATION (IBD)
6-year-old neutered male golden retriever with food allergy (duodenoscopy)
- ___ NORMAL APPEARANCE OF ILEOCOLIC VALVE
(colonoscopy)
- ___ SEVERE LYMPHOPLASMATIC INFILTRATION (IBD), mild lymphangiectasia, and edema of the villi
5-year-old spayed female Labrador retriever (duodenoscopy)
- ___ SEVERE LYMPHOPLASMATIC INFILTRATION (IBD)
9-year-old male dalmatian (duodenoscopy)

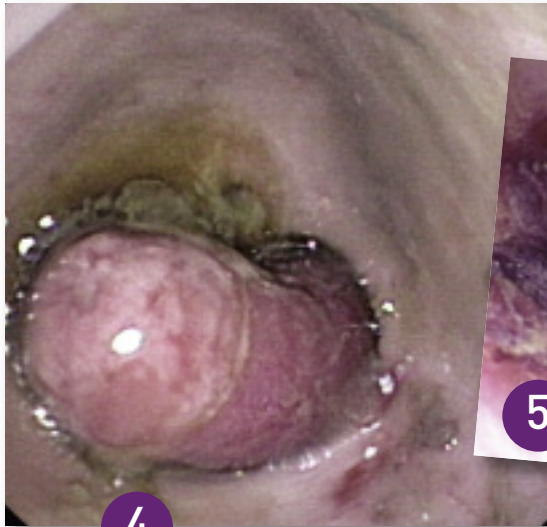




2A



2B



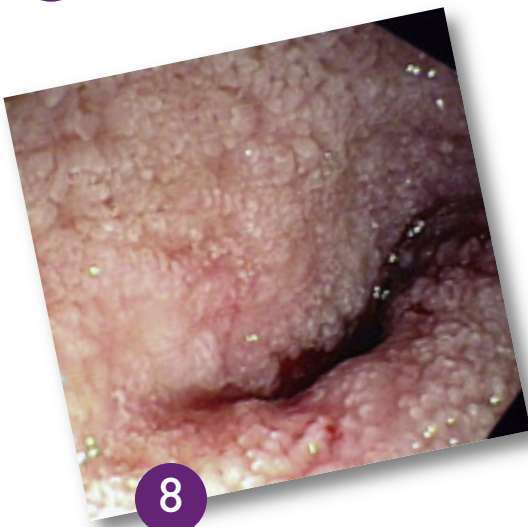
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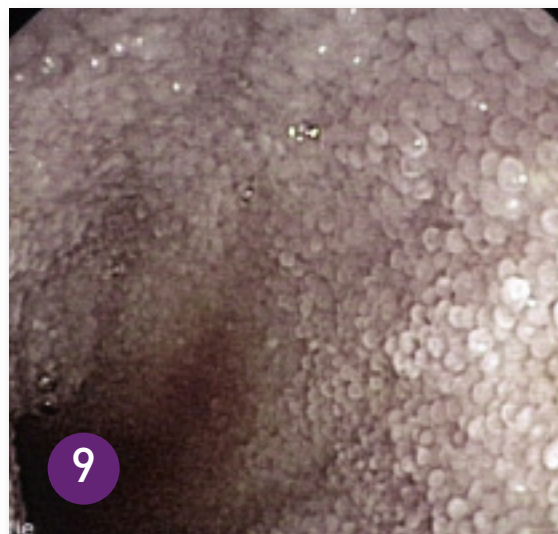
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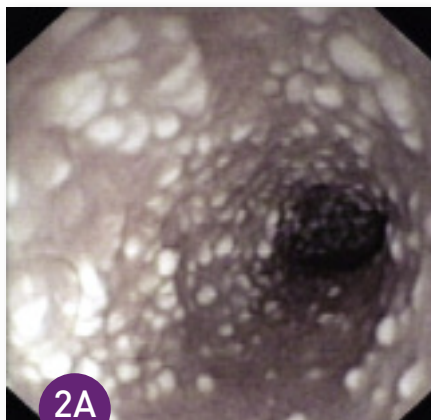


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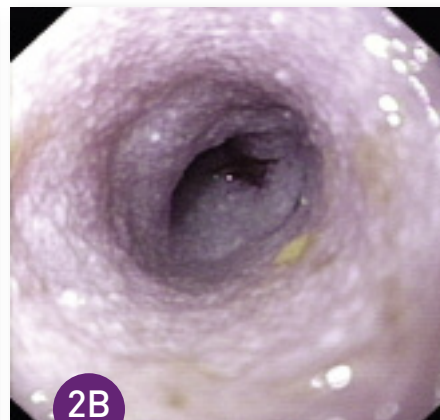
COLONIC ADENOMATOUS POLYP

Polyps can appear as wide-based cauliflowerlike masses, such as the one in this image, or can have a smooth surface with a narrow base. The latter can sometimes be removed relatively easily with cauterization. Biopsies are always necessary to determine the final histologic diagnosis.

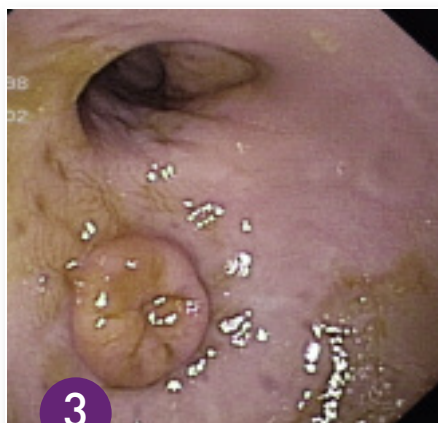


LYMPHANGIECTASIA & SEVERE LYMPHOPLASMACYTIC INFILTRATION

A. The image shows white speckles infiltrating the small intestinal mucosa, which presumably represent large accumulations of lymphocytes and plasma cells around enlarged lymph vessels. Yorkshire terriers are predisposed to primary lymphangiectasia, and severe inflammatory bowel disease can sometimes be recognized on histologic examination as well. In these cases, immunosuppressive drugs are indicated.



B. Same Yorkshire terrier after 6 weeks of treatment with cyclosporine. Only a few white speckles are visible in the mucosa and the appearance is almost back to normal. On histologic examination, there was still mild lymphoplasmacellular infiltration but no more evidence of lymphangiectasia. Clinical signs had greatly improved.



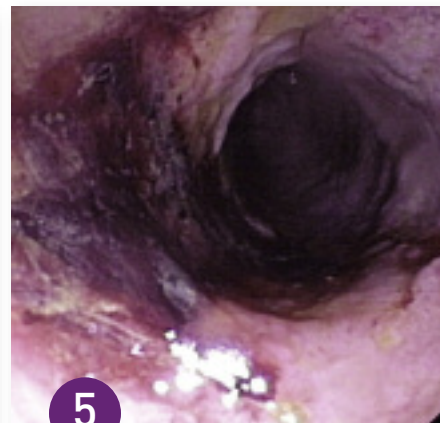
NORMAL APPEARANCE OF ILEOCOLIC VALVE

In the lower part of the image, the ileocolic valve is visible. In the upper part, the opening into the cecum is visible. Complete colonoscopy in cats and dogs includes inspection of the ileocolic valve. An attempt should be made to intubate the ileum or blindly obtain ileal biopsy specimens.



CECOCOLIC INTUSSUSCEPTION

The structure entering the colon is the inverted cecum, hence the diagnosis of cecocolic intussusception. Cecocolic intussusceptions can result from severe intractable large intestinal diarrhea, as was the case in this boxer. Sometimes such intussusceptions are not visible by ultrasonography because air is obscuring the picture. Treatment is surgical.



ADENOCARCINOMA

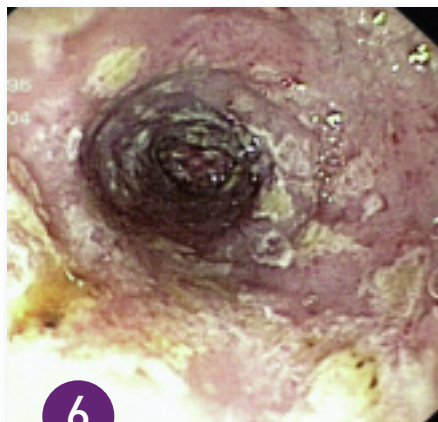
This image shows blood in the descending colon that partly obscures an underlying mass. Adenocarcinomas of the colon can appear as large masses or rather like ulcers, as in this case. Biopsies are necessary for histologic diagnosis and excisional biopsies are sometimes the only means of providing a final diagnosis.

CONTINUES

FIND MORE

See **Intestinal Endoscopic Biopsy Techniques** (February 2010) for a step-by-step guide detailing small and large intestine biopsy techniques.

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SEVERE LYMPHOPLASMACYTIC INFILTRATION

Severe ulcerations and white plaques in the upper small intestine can be seen in this image. Inflammatory bowel disease can appear as normal gastrointestinal mucosa, with only mild mucosal granulations or, as in this case, severe lesions. Twelve to 15 good-quality endoscopic biopsy specimens are required to make a final histologic diagnosis.



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MILD LYMPHOPLASMACYTIC INFILTRATION

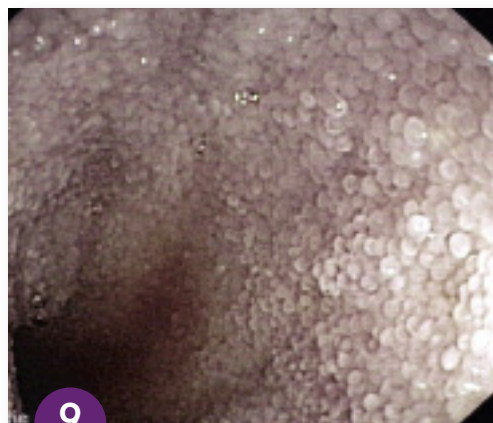
This image shows only very mild thickening of the duodenal mucosa. The dog had a history of small intestinal diarrhea for over 6 months and responded well to treatment with an elimination diet. Often, food allergy shows mild, moderate, or severe lymphoplasmacytic infiltration or eosinophilic infiltration (consistent with IBD) on histologic examination.



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HISTIOCYTIC SARCOMA

Severe thickening and increased granularity of the upper small intestinal mucosa are present in this image. Occasionally, systemic neoplasia other than lymphosarcoma can be diagnosed endoscopically. Biopsies and immunohistochemistry for MAC387 (a histiocytic marker) were necessary to make the final diagnosis in this case.



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SEVERE LYMPHOPLASMACYTIC INFILTRATION

This image shows severe edema of the villi in the small intestine. The dog presented with clinical signs of ascites and peripheral edema due to severe protein-losing enteropathy (PLE). In this case, IBD was probably the underlying cause of the PLE. Endoscopic biopsies were required to determine the final diagnosis.

IBD = inflammatory bowel disease;
PLE = protein-losing enteropathy