Macroscopic and histopathological examination of the gastric mucosa in dogs with inflammatory bowel disease (IBD) treated with mesalazine

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Abstract

The objective of this study was to carry out a macroscopic and histopathological examination of the gastric mucosa in dogs with inflammatory bowel disease and to evaluate the effect of mesalazine therapy on histopathological changes in the gastric mucosa. The treatment was performed on 18 dogs with histopathologically confirmed inflammation of the duodenum and the jejunum. The animals were administered mesalazine at 12.5 mg/kg b.w. bid over a six-week period. The dogs investigated were diagnosed with chronic catarrhal gastritis with intense lymphocytic/plasmocytic infiltration. In 83% of the dogs, intestinal metaplasia had been noted in biopsies before examination. The results of macroscopic and microscopic examinations revealed that the applied treatment had a positive effect on gastric mucosal morphology. Cellular infiltration of the gastric mucosa was significantly inhibited, most probably, due to the anti-inflammatory effect of mesalazine.

Key words: dog, IBD, chronic gastritis, mesalazine.

Introduction

Inflammatory bowel disease (IBD) is a term defining a differentiated group of intestinal disorders. It occurs most frequently in dogs and causes clinical symptoms such as: chronic vomiting, diarrhea, dehydration and weight loss. IBD is accompanied by cellular infiltration in the mucosal lamina propria of the small intestine and the colon (Dennis et al. 1992, Dennis et al. 1993, Jergens 1999, Craven et al. 2004). Since dogs are more often affected by changes in the proximal segment of the small intestine, the inflammatory process is also likely to occur in the gastric mucosa. Research data from human medicine indicate that bowel inflammations are accompanied by characteristic changes in the histopathological structure of the gastric mucosa (Oberhuber et al. 1998, Parente et al. 1998, Hoffman et al. 2003). There are very few published references describing the macroscopic and histopathological changes of the gastric mucosa in dogs affected by IBD. Inflammatory bowel disease poses also a therapeutic problem. Glycocorticoids are the main group of drugs used in the treatment of IBD in dogs. Except for new generation steroids such as budesonide, glycocorticoids have many side effects and may not always be administered