

Small Animal Paper - Sample Short Answer Question

A 2-year-old Boxer is presented with a 4-month history of chronic, intermittent, mucoid and blood-tinged diarrhoea with tenesmus and weight loss. Colonoscopy reveals an inflamed and ulcerated colon. Endoscopic biopsies are submitted.

- a) What is the most likely diagnosis? (2 marks)

Histiocytic ulcerative colitis (granulomatous colitis) of Boxer dogs.

- b) What is the likely cause of this condition, and what other breed is predisposed? (3 marks)

Selective intramucosal colonisation by adherent/invasive strains of Escherichia coli (AIEC) (1) within macrophages in the colonic mucosa (1). French Bulldogs are also predisposed (1).

- c) Describe the key histologic features of the lesion? (4 marks)

Diffuse accumulation of macrophages (1) with abundant, foamy/granular eosinophilic cytoplasm throughout the mucosa (1), extending from the base of the crypts into the submucosa (1), with mucosal ulceration in more severe/chronic cases (1).

- d) Name a special stain that highlights the causative organism within the lesion, and what it demonstrates? (3 marks)

Periodic acid-Schiff (PAS) stain, FISH or IHC for E. coli (1), which highlights lamina propria macrophages (1) containing bacteria (1).