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Colon of common marmoset

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common marmoset
(wikipedia)

Contributor: University of Pittsburgh

Signalment: Adult female common marmoset (*Callithrix jacchus*)

History: This marmoset had diarrhea of undetermined origin.

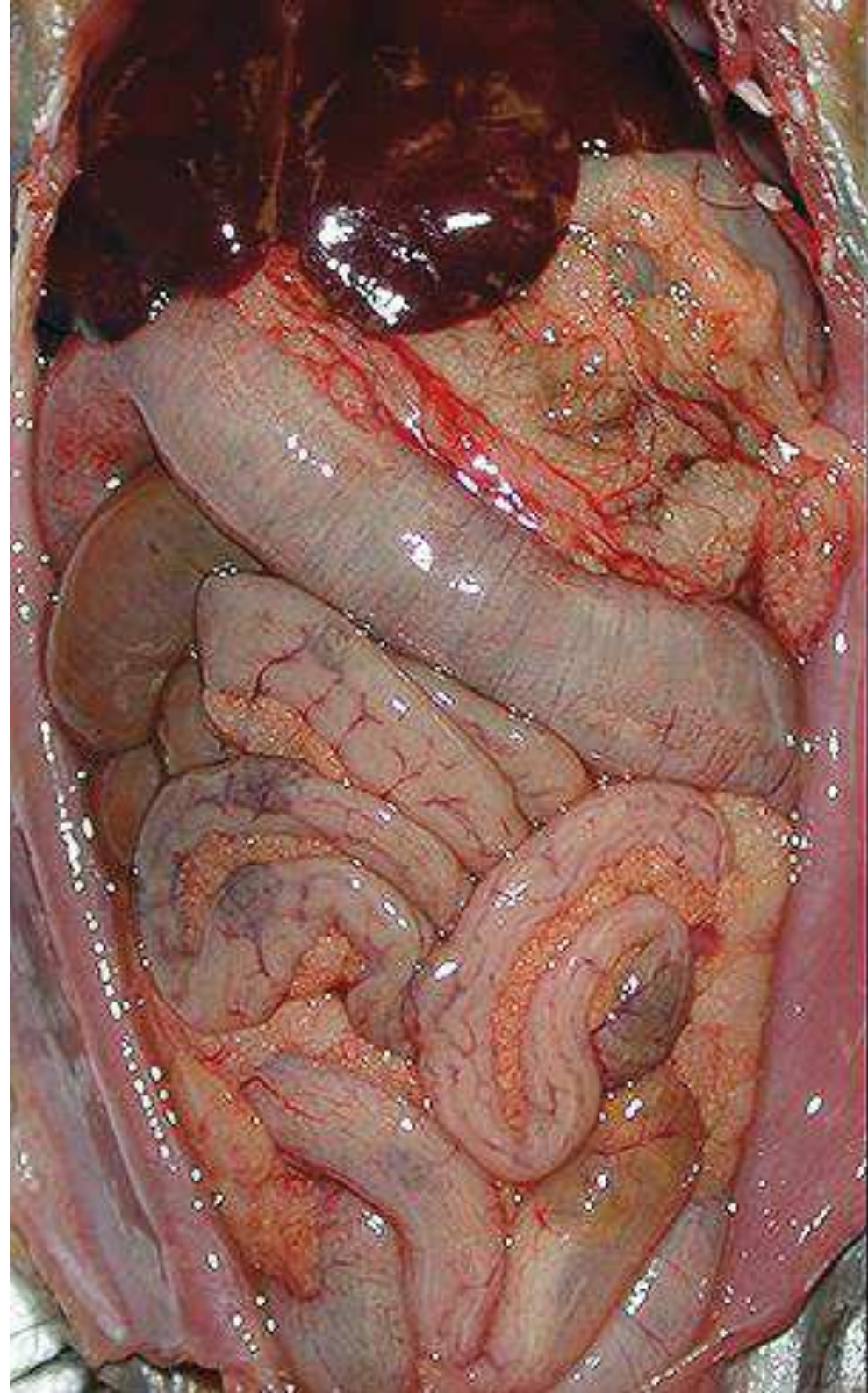
Baytril was used with a brief response.

Several animals had then been used for terminal experimental manipulation subsequent to their rapid clinical deterioration.

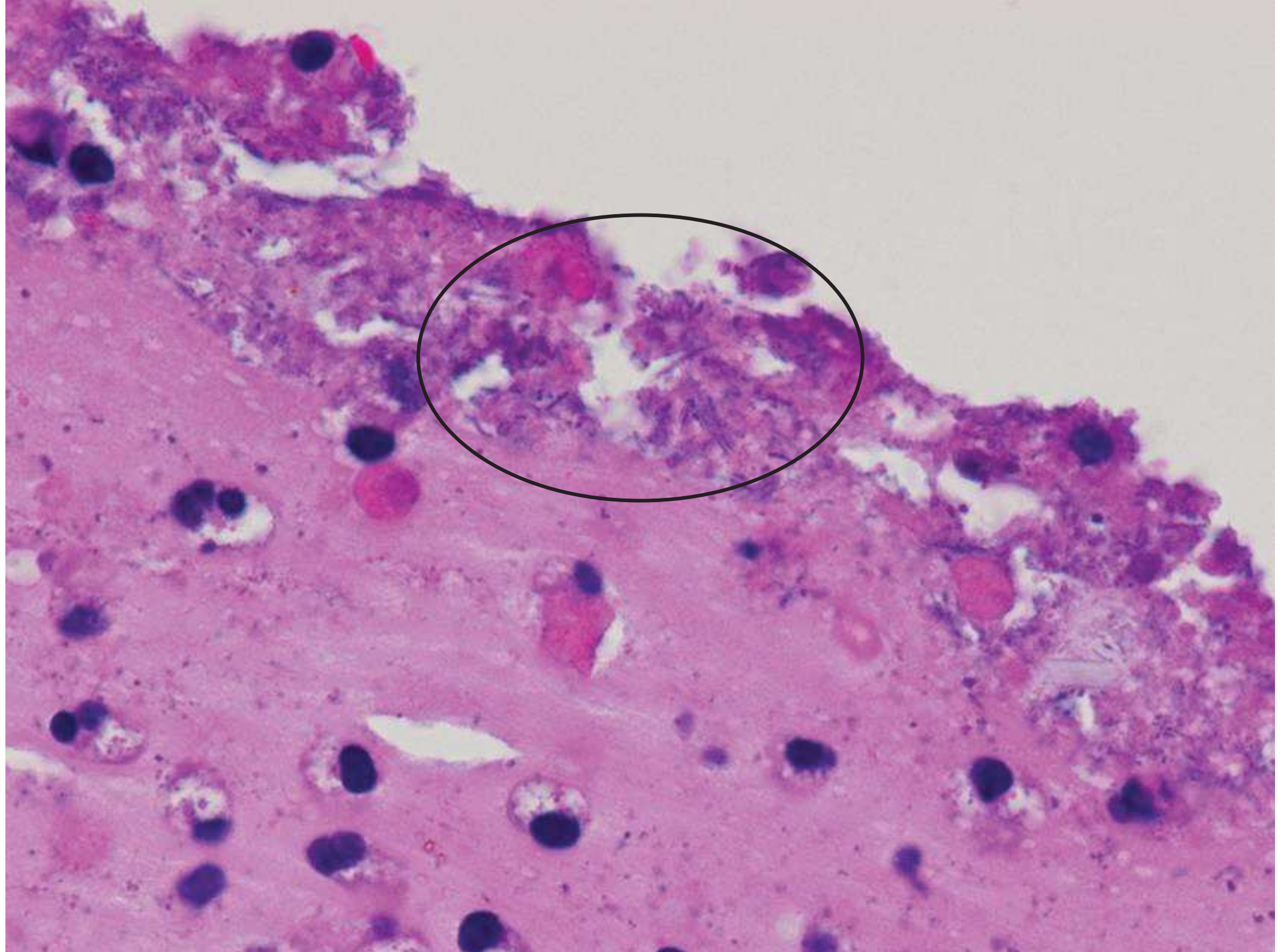
Gross pathology:

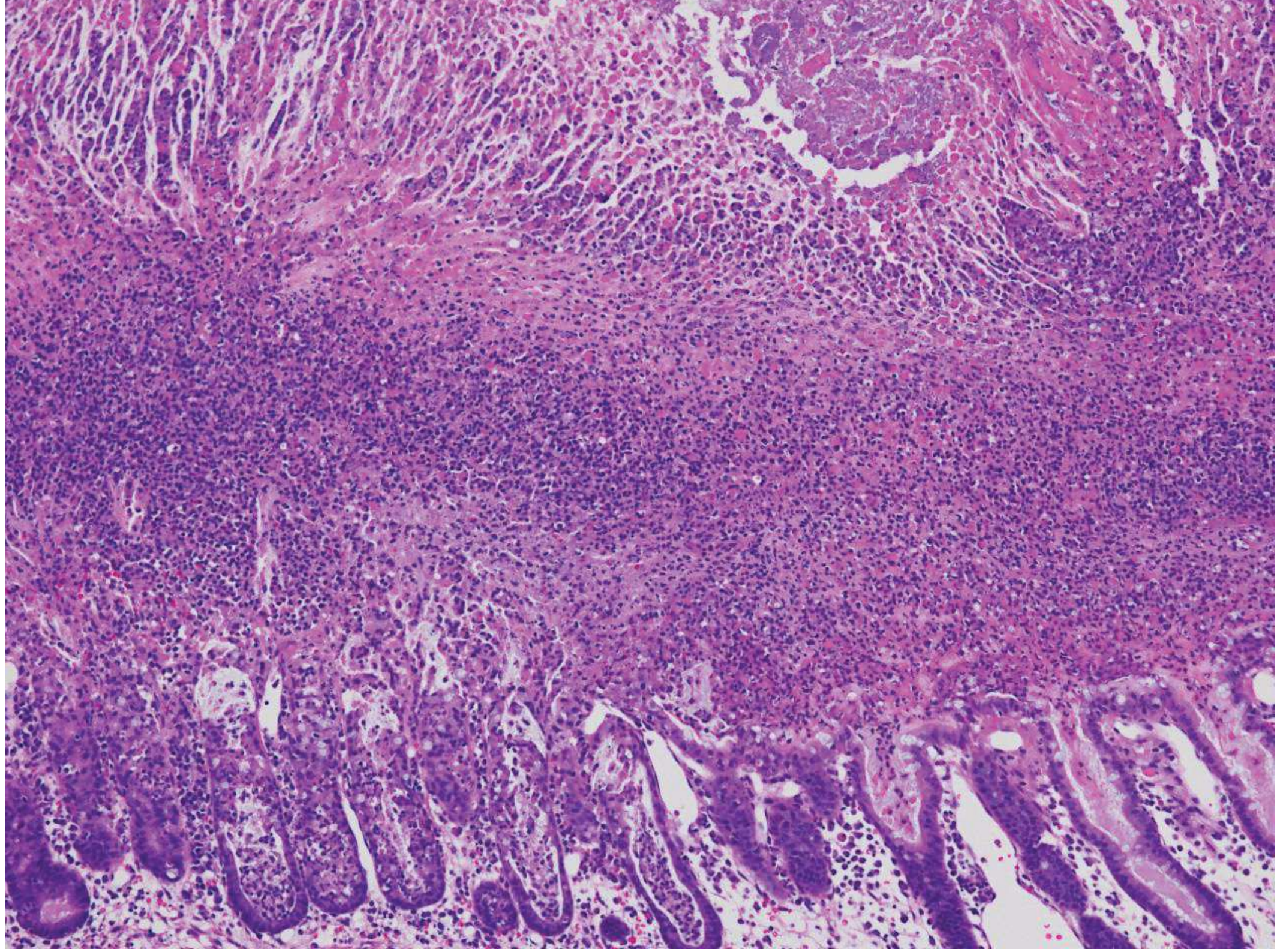
The colon is markedly distended and filled with a clear gelatinous material. Nodular whitish areas of necrosis are present within the underlying mucosa.

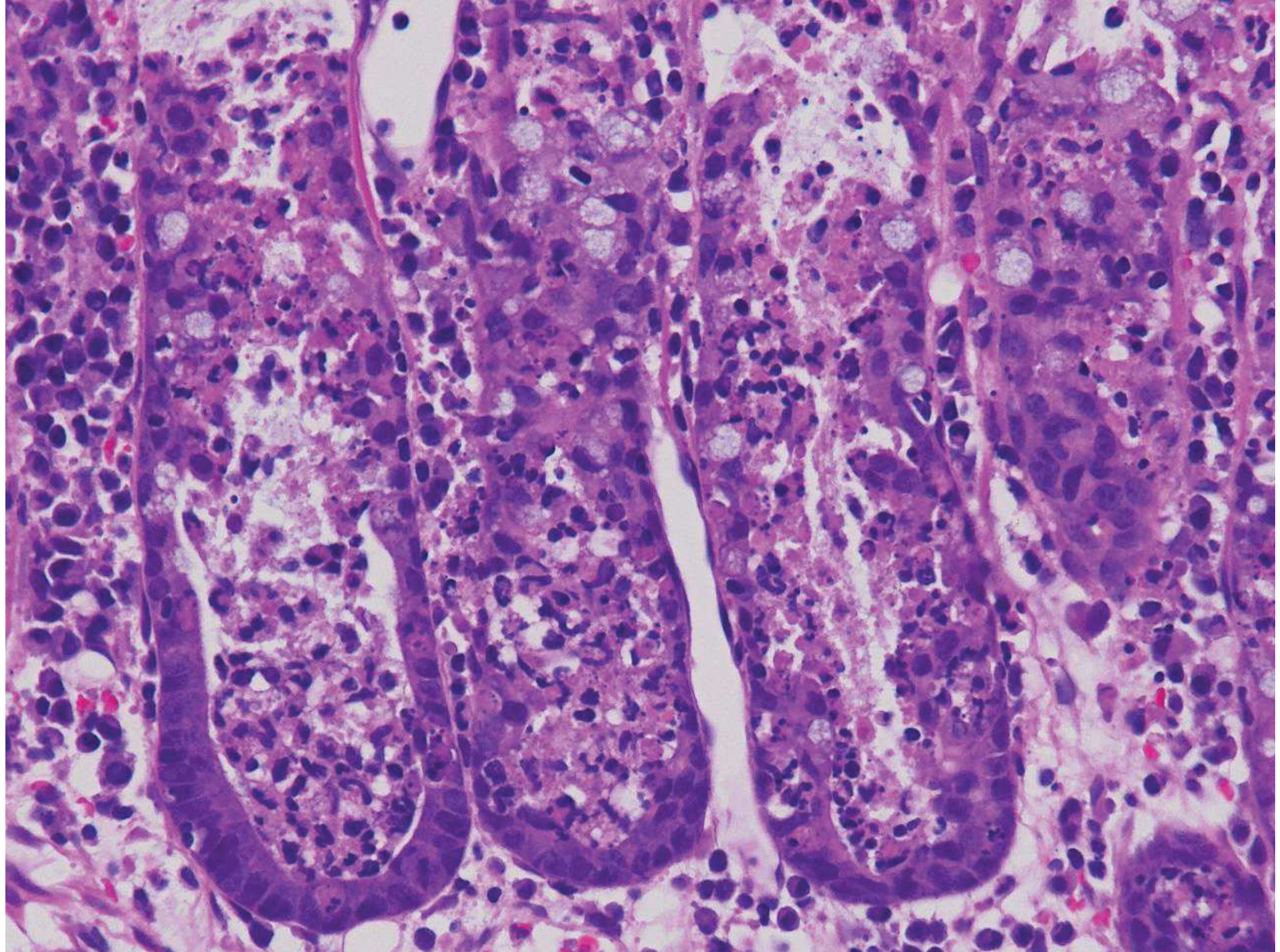
Laboratory result: Fecal sample was PCR-positive for *C. difficile* Toxin B gene.

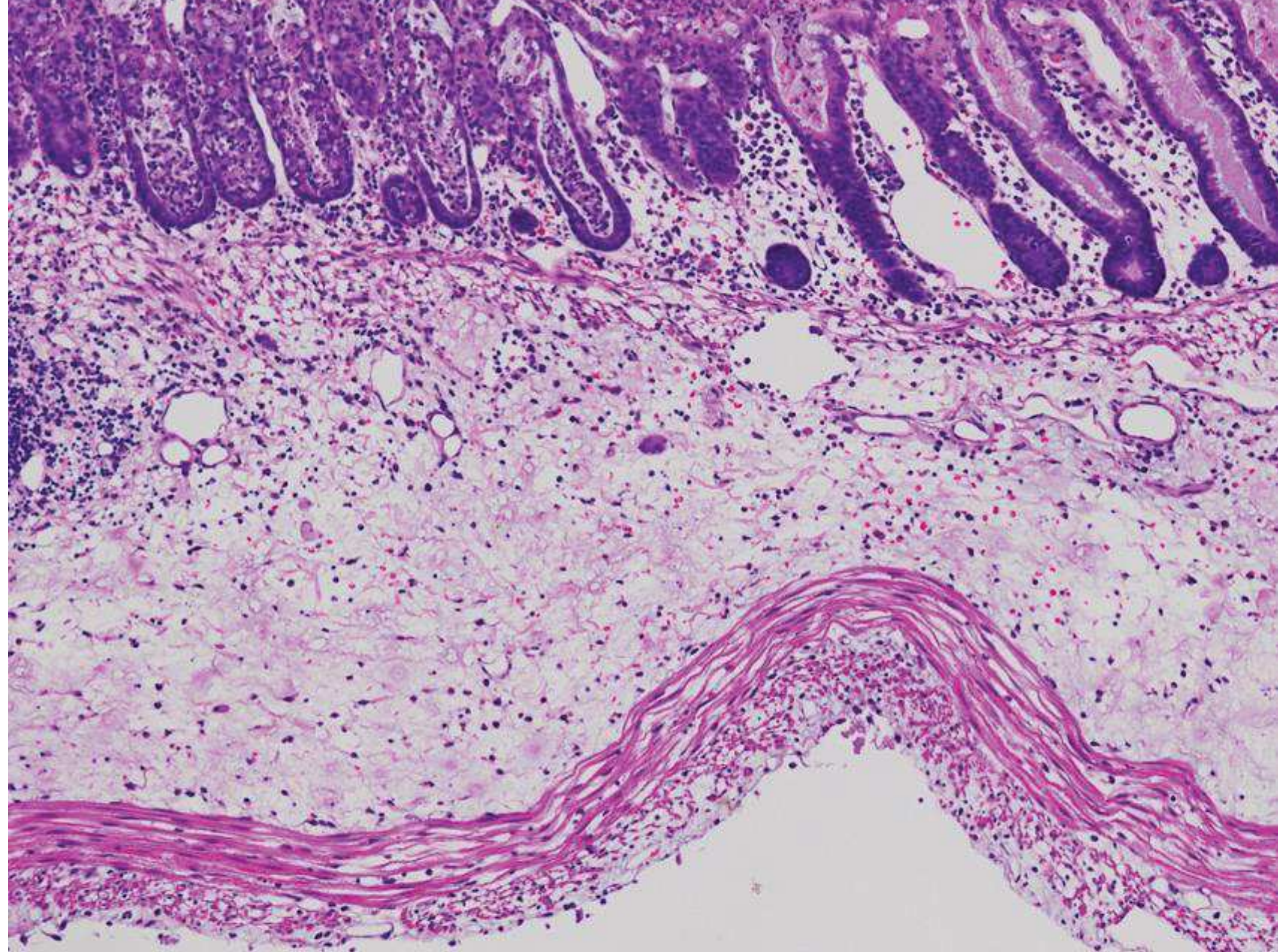












Contributor's Morphologic Diagnosis:

Colitis, fibrinonecrotizing and pseudo-membranous, diffuse, severe, with extension of inflammation into crypts and marked submucosal edema.

JPC Diagnosis:

Colon: Colitis, necrotizing, circumferential, diffuse, severe, with fibrinocellular pseudomembrane and marked submucosal edema.

Contributor's comment

- The gross and microscopic findings consistent with *Clostridium difficile* colitis
- *C. difficile* infects humans, horses, pigs, hamsters and rabbits. Natural or experimental infection exist in guinea pigs, mice, rats, domestic cats and dogs, calves, ostriches, prairie dogs and nonhuman primates
- Cecum and colon are most often affected in the majority of species, however, foals and rabbits develop severe lesions in the small intestine.
- *C. difficile* infection occurs when the natural flora in the gut is disrupted especially in antibiotic administration. In some species, stress, change of diet, transportation, starvation, and medical or surgical treatment can initiate disease.
- *C. difficile* toxins, TcdA and TcdB : ELISA, PCR

Conference comment

- This case demonstrates the classic “volcano” lesions of florid fibrinosuppurative exudation.
- *C. difficile* elaborates A and B toxins which diffuse into the tissue from the lumen and destroy the apical mucosal epithelium, in addition to causing the marked submucosal edema
- Measles virus is a differential for enteritis in common marmosets, and other new world monkeys.
- Histologic lesions of measles in marmosets are: epithelial necrosis in the stomach, cecum, and colon, with syncytia, and intracytoplasmic viral inclusion bodies in the mucosal epithelium and the gut associated lymphoid tissue (GALT).