HISTIOCYTIC ULCERATIVE COLITIS IN A FRENCH BULLDOG FROM COSTA RICA.

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INTRODUCTION.

Granulomatous colitis, also known as a histiocytic ulcerative colitis, is an uncommon condition that occurs with few exceptions exclusively in young boxer dogs (≤ 4 years of age) and that was first reported in the USA by Van Kruiningen and others (1965). Since then, it has been reported in others countries like Australia, Japan and Europe. Nevertheless, it has never been reported in Latin America. The clinical signs are very similar to others colitis. They are characterized by diarrhea, tenesmus, hematochezia and excessive mucus, and occasionally weight loss and inappetence. Formerly, the etiology was believed to be a consequence of an immunemediated disorder. However, recently in natural cases, this granulomatous colitis was produced by an invasive intramucosal Escherichia coli. There is a need of colonic biopsy in order to confirm the clinical diagnosis. Microscopically, it is described as mucosal ulceration, with marked infiltration of macrophages with abundant foamy eosinophilic cytoplasm, present in the lamina propria and submucosa. The macrophages contained PAS-positive material.

MATERIALS AND METHODS.

A 3-year-old, intact male French bulldog showed progressive weight loss, diarrhea, tenesmus, soft with mucus feces, and hematochezia. The clinical signs were unresponsive to antibiotic and deworming treatment. Therefore, it was decided to euthanize the animal. Information on gross changes was unavailable. Formalin fixed specimens of stomach, small intestine, pancreas and

colon, were submitted for histopathological examination. The samples were processed routinely and stained with hematoxylin and eosin (H.E.) and PAS.

RESULTS.

Histological examination with H.E. stained the colon mucosa showed multifocal erosion and ulceration, with depletion of goblet cells, especially in the erosive and ulcerative areas. Figs. 1,2.

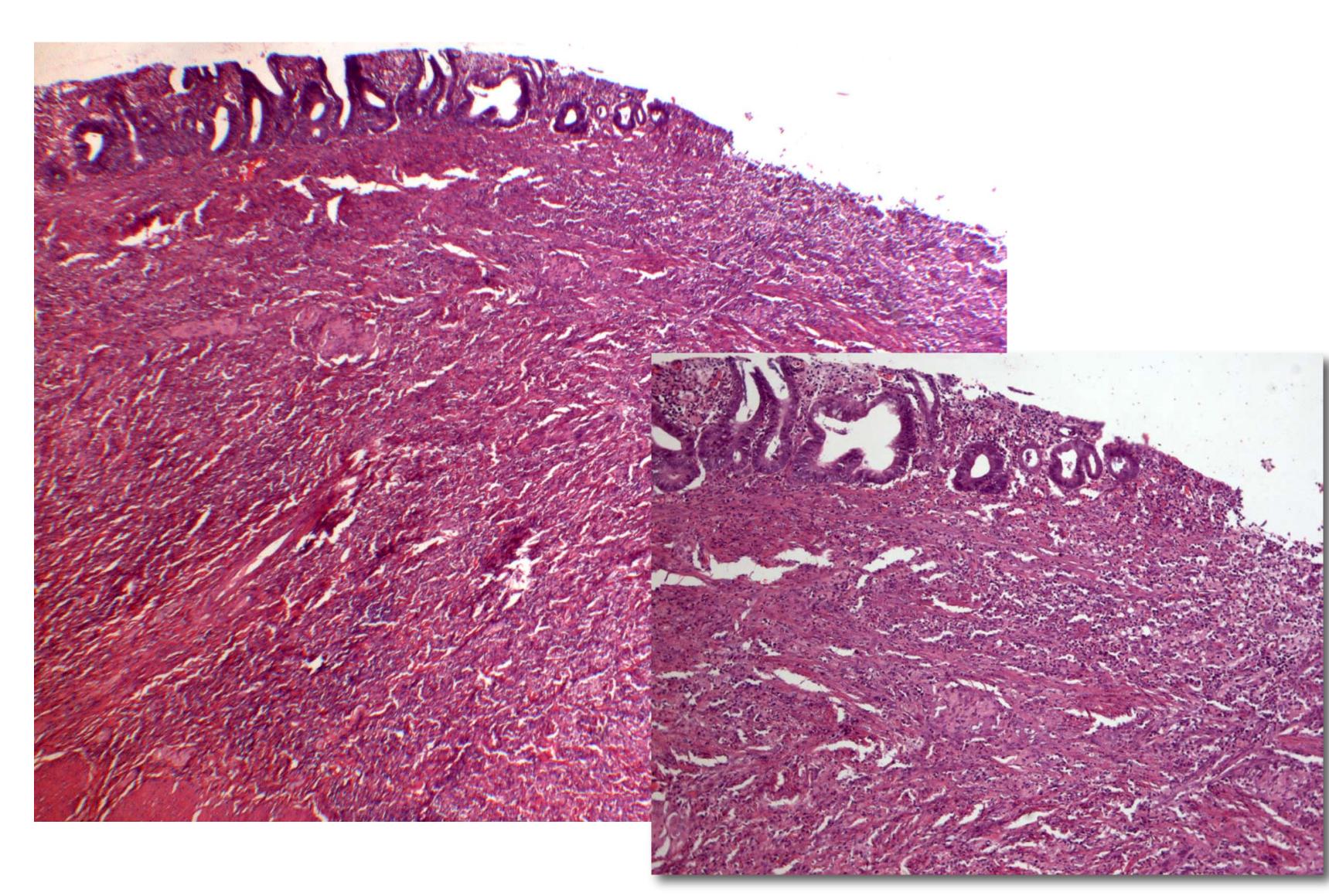


Fig. 1. The mucosa shows erosion and ulceration with consequent inflammation and thickening of submucosa. H.E.

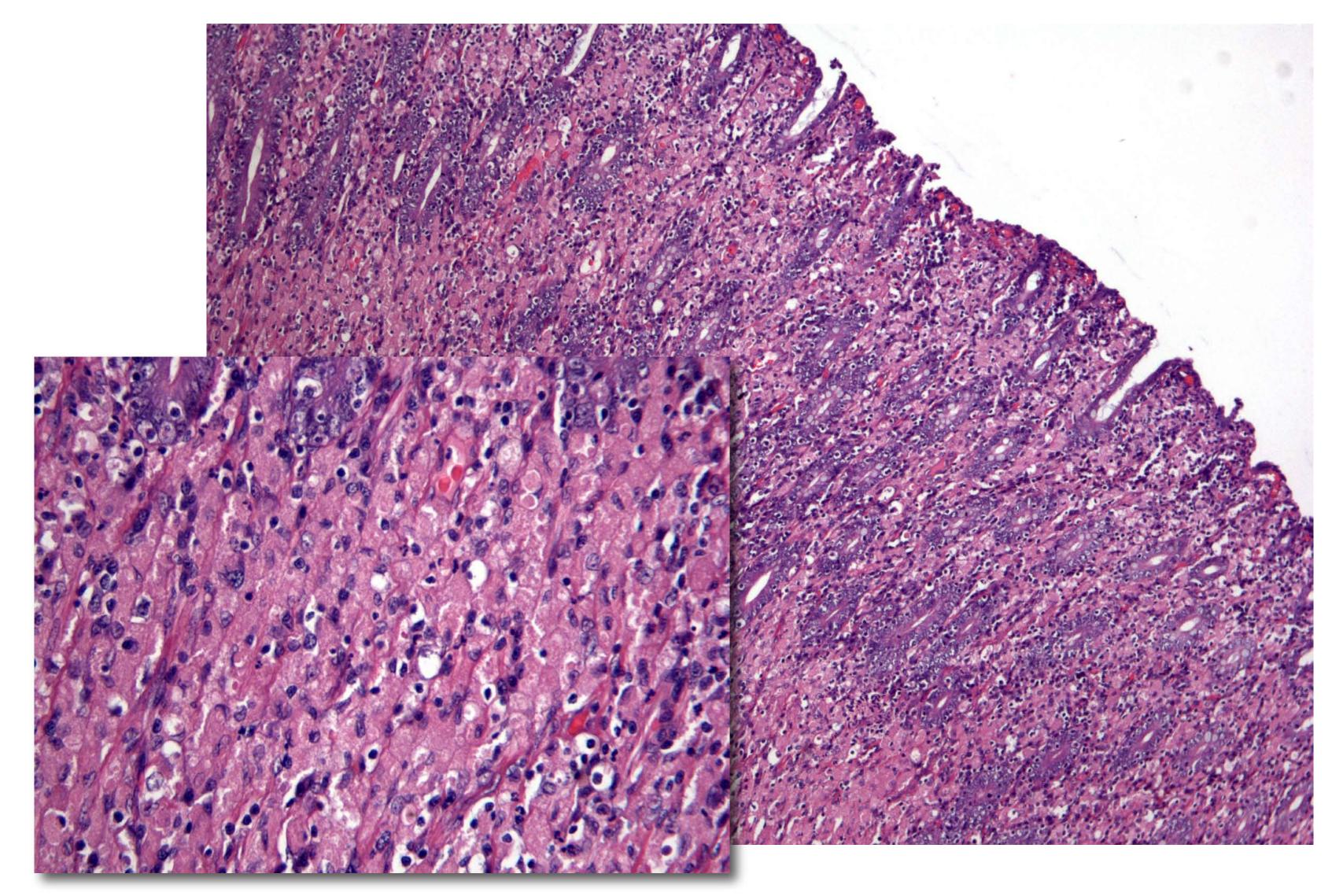


Fig.2. The mucosa is invading by macrophages with a lot of eosinophilic cytoplasm. H.E.

The inflammatory reaction was severe and diffuse. They were numerous macrophages with abundant foamy eosinophilic and PAS positive granular material in the cytoplasm, and fewer lymphocytes, plasma cells and neutrophils. They were diffusely infiltrating the lamina propria, and extending in to the submucosa, as well as muscular layers and nervous plexus. Figs.3,4,5. The small intes-

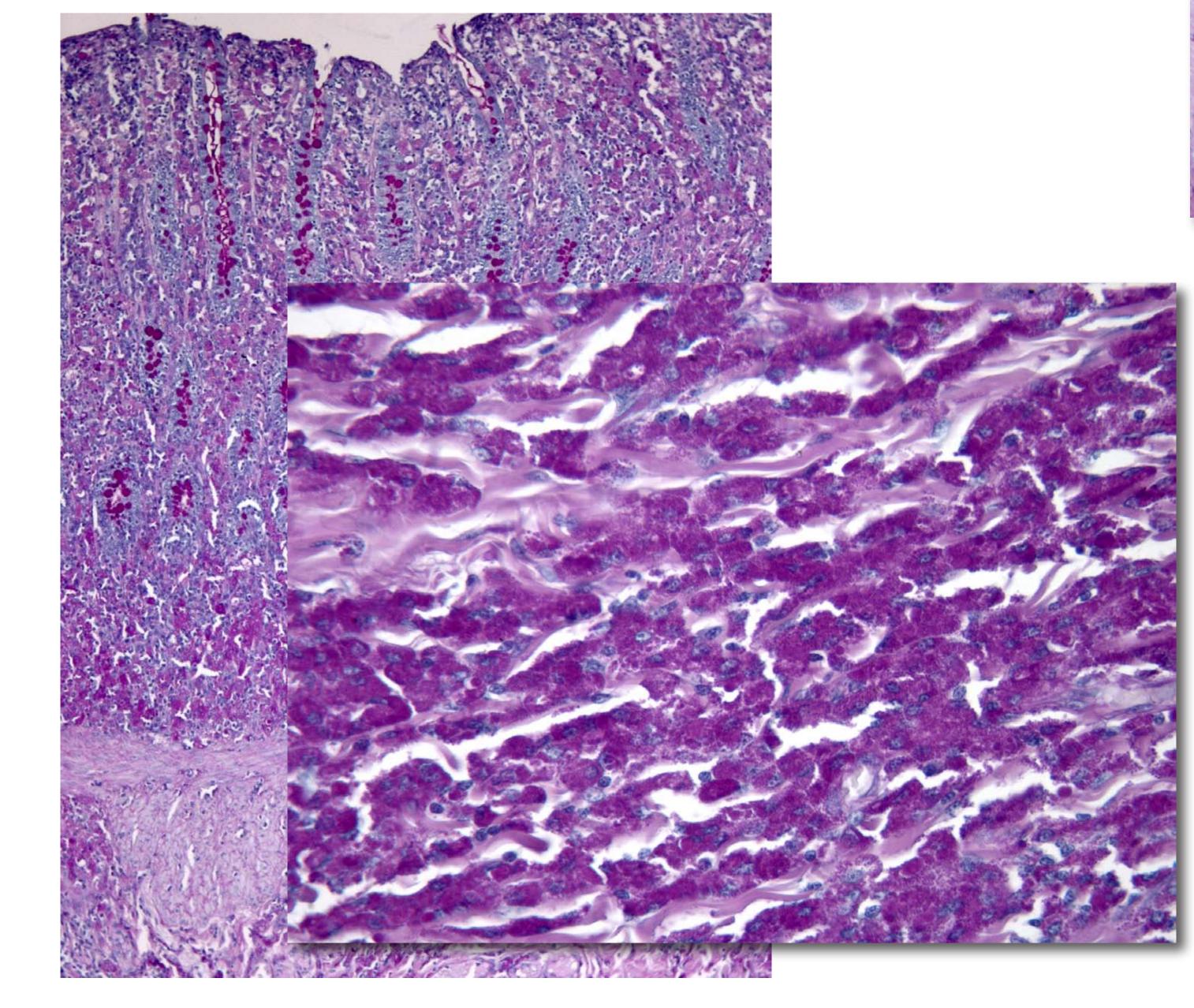


Fig.3. The mucosa and submucosa have abundant macrophages with PAS positive granular material.

Inset close-up

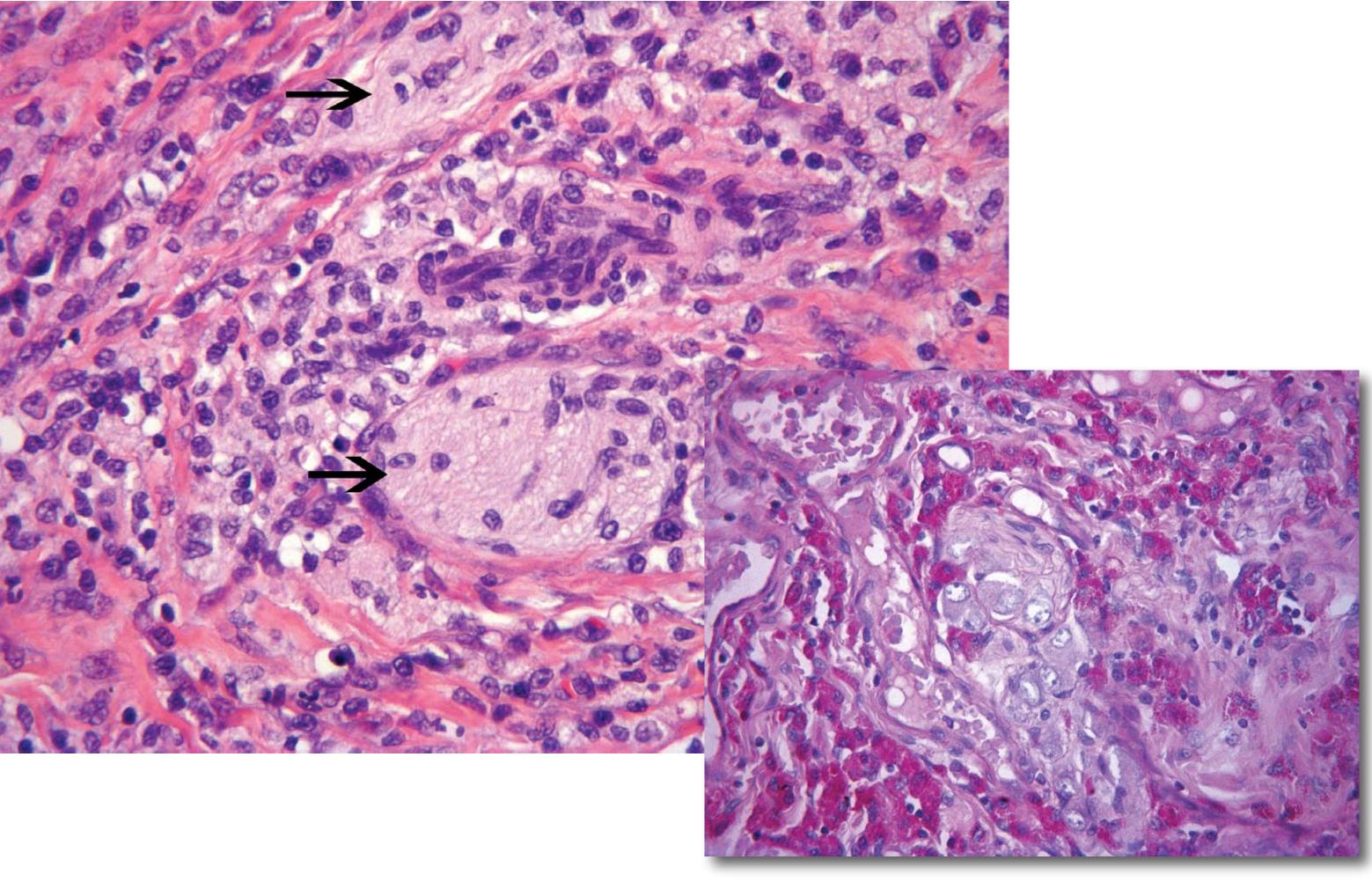
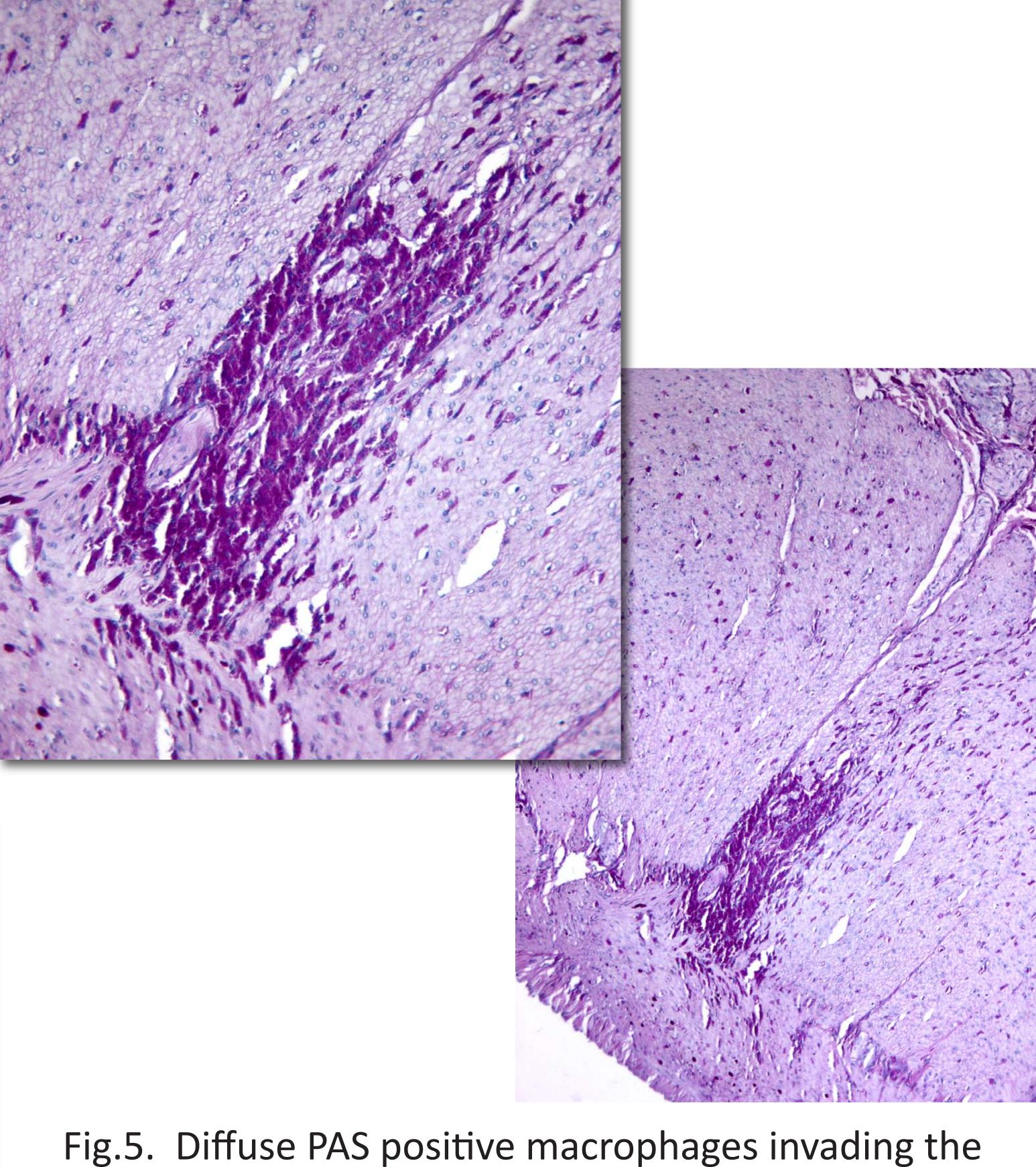


Fig. 4. The nervous plexus (arrows) are surrounding by mononuclear inflammatory cells. Several are PAS positive. Inset. Close-up



deep muscular layers, reaching the serosa.

Inset. Close-up

tine only had a moderate mucosal infiltration of lymphocytes, plasma cells and histiocytes, which were negative for cytoplasm granules with PAS stain.

The pancreas and stomach showed no alterations.

DISCUSSION.

The majority cases reported with this ulcerative colitis, occurred in young dogs less than four years of age, as it occurred in our case. Moreover, the clinical signs developed in this dog, are very similar to ones reported in this granulomatous colitis. Furthermore, the microscopic findings described in this histiocytic ulcerative colitis, characterized by mu-

cosal and submucosal infiltration of large numbers of foamy, PAS positive macrophages, which are considered pathognomonic to this disease were present in this case. Despite the fact that, the vast majority of cases are reported in boxers, this is the third reported in a French bulldog (breed ancestral related with Boxer), all of them outside from North America. Additionally, this is the first case of histiocytic ulcerative colitis reported in Latin America. Regarding the etiology, until recently it was considered as an idiopathic immune-mediated colitis, with poor reaction to dietary changes, antibiotics and immunosuppressive drugs. Now there is strong evidence in the literature that is cause by an invasive Escherichia coli with response to the enrofloxacin.

Acknowledgement. To Dr. Javier Ortiz, for providing the case and the clinical information.

RECOMMENDED REFERENCES:

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