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Imaging features of Whipple's disease: fat-containing mesenteric lymphadenopathy and jejunal mucosal fold thickening

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Authors´ contribution: data curation: G.D.M; supervision: L. C. A. J., L.F.P.G; writing-original draft: G.D.M, L. C. A. J. and L.F.P.G

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Keywords: Whipple disease. Mesenteric lymphadenopathy. Jejunum. Computed tomography. Duodenal biopsy.

INTRODUCTION

We are pleased to submit our manuscript entitled *"Imaging features of Whipple's disease: Fat-containing mesenteric lymphadenopathy and jejunal mucosal fold*

thickening" for consideration in the *Revista Española de Enfermedades Digestivas* under the section *Images in Digestive Diseases*.

This case highlights the relevance of radiologic and endoscopic findings in the diagnosis of Whipple's disease, a rare but clinically significant systemic infection. We believe the radiologic features, combined with illustrative endoscopic and histopathological images, may be of interest to your readership, as they help establish and reinforce imaging clues suggestive of Whipple's disease — particularly in the differential diagnosis of granulomatous gastrointestinal disorders.

The manuscript has not been published, is not under consideration elsewhere, and all authors have approved its submission. We declare no conflicts of interest or funding sources related to this work.

CASE REPORT

A 41-year-old woman was referred to our tertiary center for evaluation of chronic abdominal pain and mesenteric lymphadenopathies. She had a 2-year history of fatigue, intermittent diarrhea, weight loss, and joint pain. Initial investigation at another hospital revealed mesenteric lymph nodes with non-caseating granulomas, suggesting extrapulmonary sarcoidosis. She began corticosteroids without improvement.

Abdominal CT (Fig. 1) showed confluent mesenteric and retroperitoneal lymphadenopathies with central fat attenuation, thickened jejunal mucosa, and mild splenomegaly. Upper endoscopy revealed whitish plaques in the distal duodenum (Fig. 2)[3]. Duodenal biopsy confirmed Whipple's disease, with PAS-positive macrophages within the lamina propria of intestinal villi (Fig. 3). Brain MRI and cerebrospinal fluid analysis were unremarkable. The patient received intravenous ceftriaxone for 14 days, followed by long-term trimethoprim-sulfamethoxazole, with resolution of gastrointestinal symptoms.

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DISCUSSION

Whipple's disease is a rare systemic infection caused by Tropheryma whipplei. CT findings such as fat-density mesenteric nodes and jejunal fold thickening may suggest the diagnosis [1,2]. Endoscopic evaluation may show whitish plaques and thickening of duodenal folds, further supporting clinical suspicion [3]. Duodenal biopsy with PAS staining remains confirmatory. This case highlights the role of radiologic clues in differentiating Whipple's disease from mimickers such as sarcoidosis, especially when initial pathology is inconclusive.

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Figure Legends

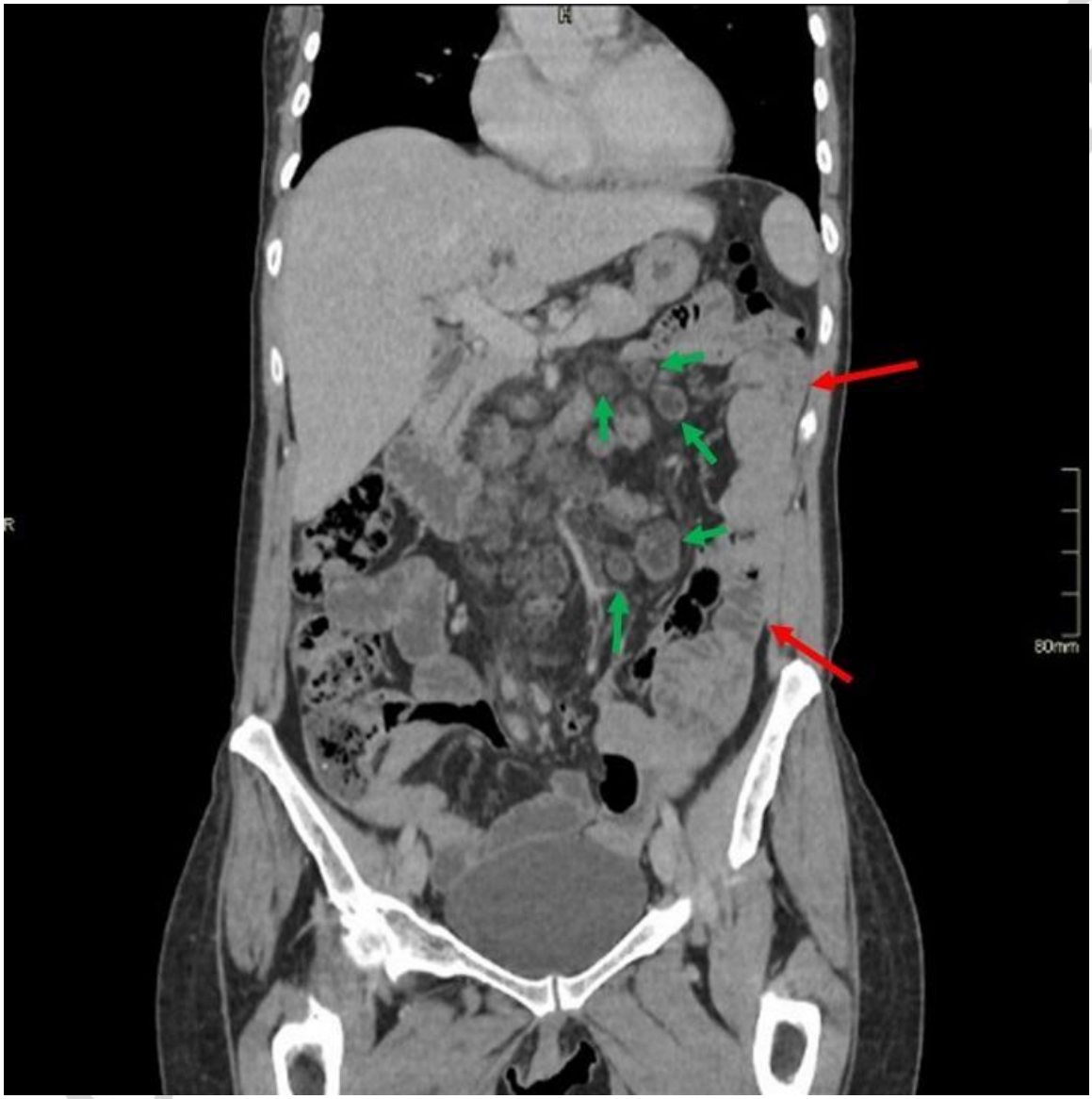

Fig. 1. Coronal contrast-enhanced abdominal CT showing confluent retroperitoneal and mesenteric lymphadenopathies with central fat attenuation (green arrows). Also note the prominent mucosal fold thickening of jejunal loops (red arrows).

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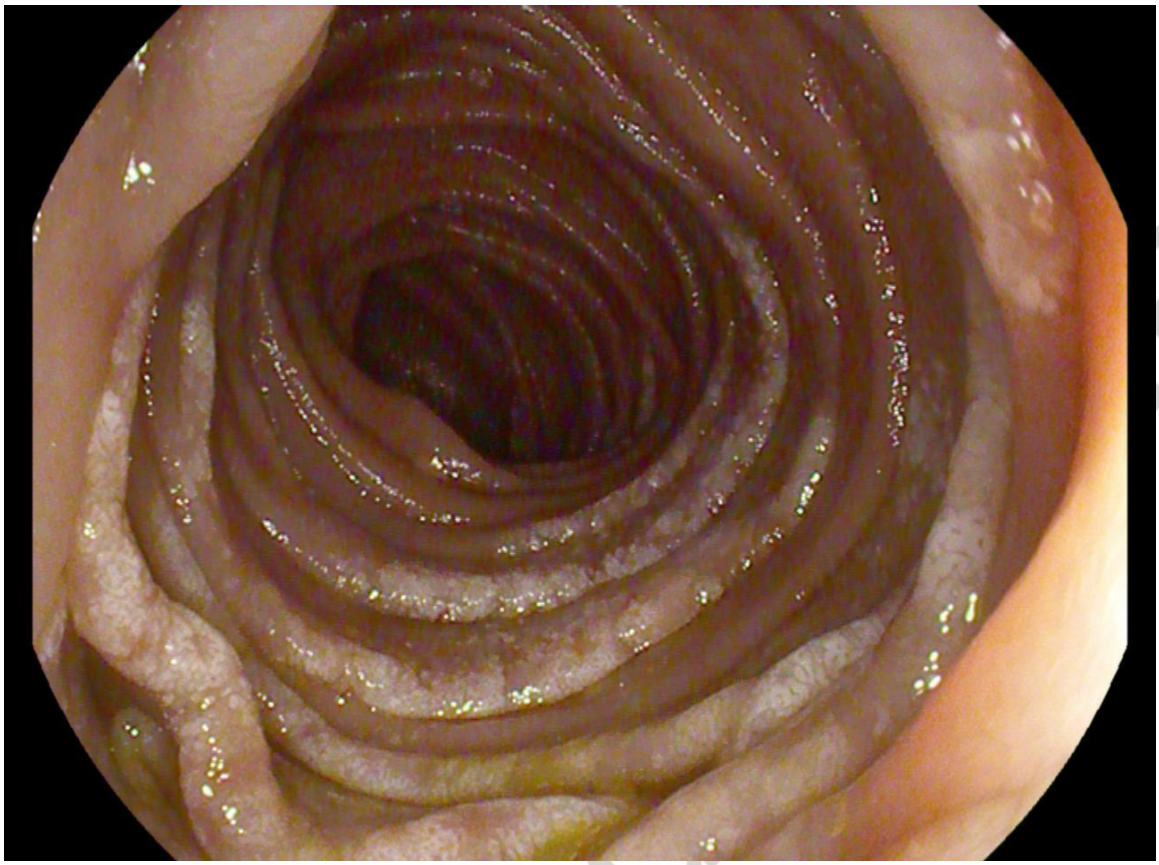

Fig. 2. Endoscopic view of the distal duodenum showing whitish mucosal plaques and thickened folds, characteristic of Whipple's disease.

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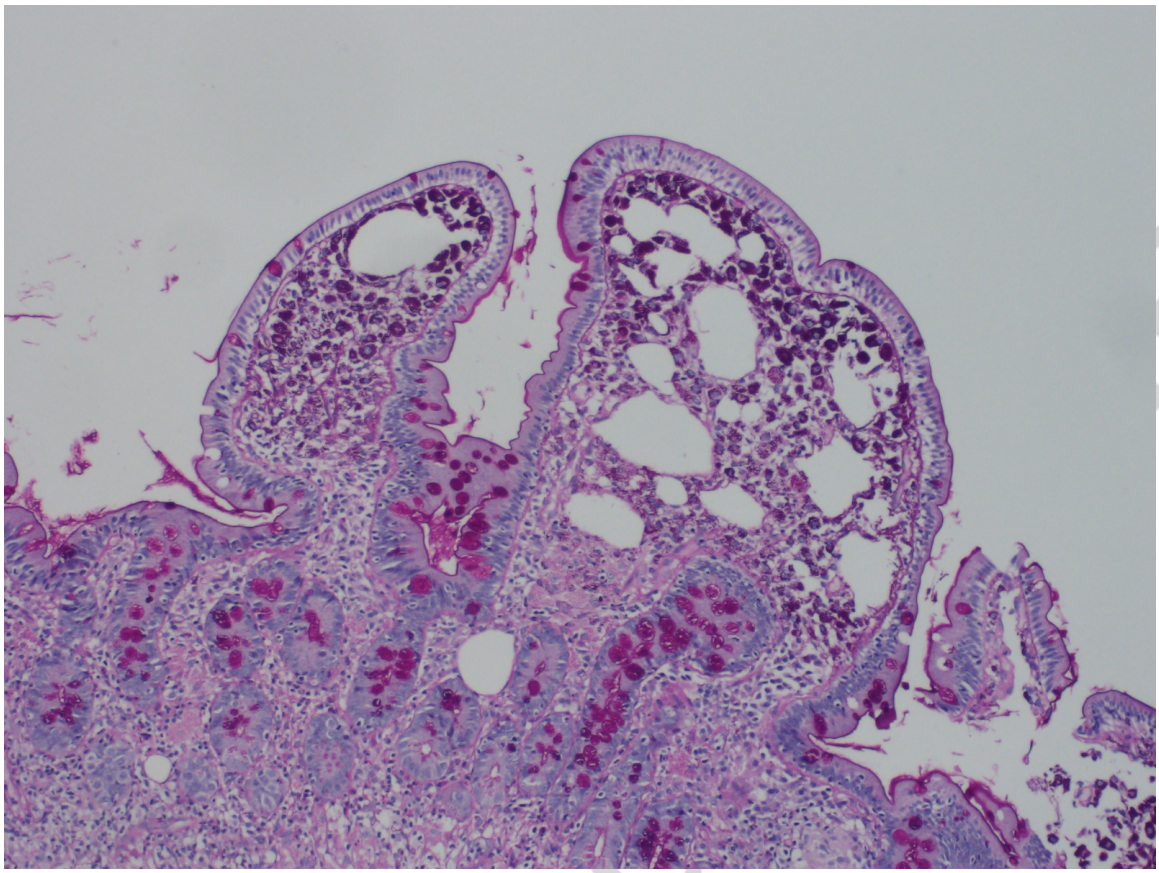

Fig. 3. Duodenal biopsy with Periodic acid–Schiff (PAS) staining showing numerous macrophages with PAS-positive granules in duodenal villi, consistent with Whipple's disease.