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A case of chronic strongyloidiasis diagnosed by histopathological study



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An 83-year-old Italian man living in the province of Verona in the northeast of Italy, presented with complaints of epigastric pain, nausea, vomiting, constipation for 2 weeks, and a 3-month history of diffuse pruritus. He also reported colonic diverticulosis and chronic obstructive pulmonary disease, with two recent episodes of pneumonia. His medications included beclometasone/formoterol 100 µg/6 µg delivered via a pressurized metered dose inhaler. He never travelled abroad and he reported a history of farm work since youth.

Laboratory tests showed haemoglobin of 96 g/l (normal value 140–180 g/l) and eosinophils of $2.2 \times 10^9/l$ (normal count $0-0.5 \times 10^9/l$). Oesophagogastroduodenoscopy showed signs of gastric and duodenal atrophy with petechial lesions (Figure 1a, b). Histological assessment (haematoxylin–eosin, $\times 200$)

showed chronic infiltration with a large amount of eosinophils around numerous helminth forms identified as larvae of *Strongyloides stercoralis* (Figure 1b, c). The diagnosis of strongyloidiasis was confirmed by indirect immunofluorescence antibody test (titre 1:320). Corticosteroids were discontinued and a single oral dose of ivermectin (200 µg/kg) was administered. The patient's symptoms resolved and his eosinophil count normalized within 3 months.

Strongyloidiasis is a soil-transmitted nematode infection, commonly asymptomatic, that was once endemic in some areas of developed countries, including Northern Italy (Buonfrate et al., 2016). The misdiagnosis in a patient chronically treated with corticosteroids, or with any other cause of immunosuppression, can result in a hyperinfection or the more severe disseminated

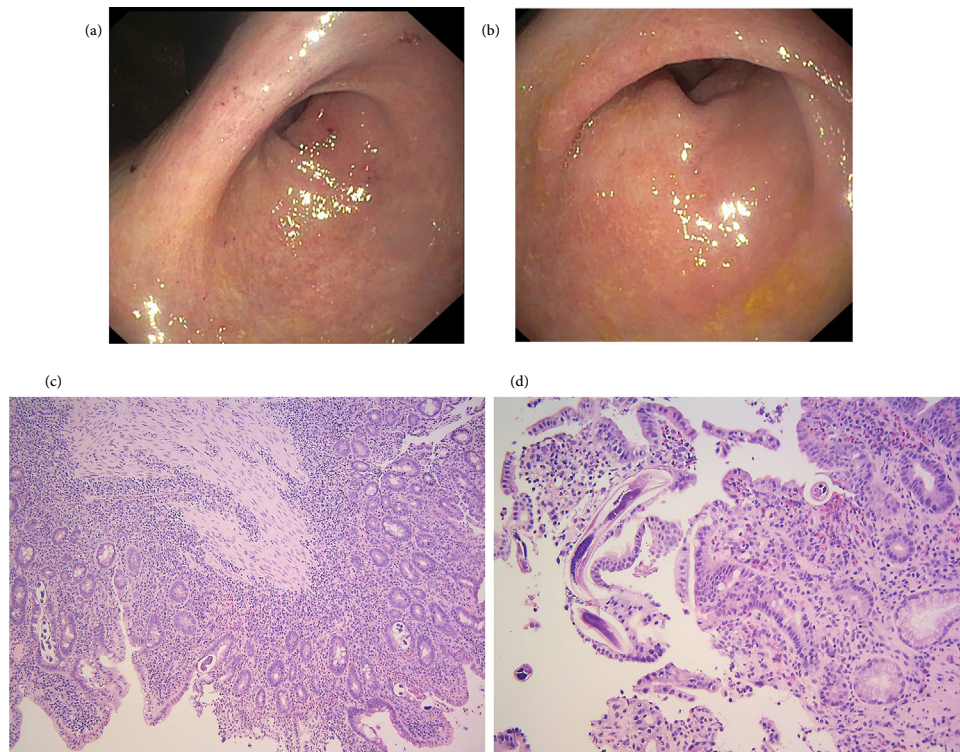


Figure 1. Endoscopic and histopathological findings in 83-years-old patient with chronic strongyloidiasis. Esophagogastroduodenoscopy showed signs of petechial lesions and gastric (a) and duodenal atrophy (b). Histological assessment (H&E; $\times 200$) showed chronic active inflammation with villous atrophy (c) and chronic gastritis (d) both with a large amount of eosinophils around numerous longitudinal and cross section larvae of *Strongyloides stercoralis* (c–d).

disease, which has a case fatality rate close to 100% (Fardet et al., 2007; Ramanathan and Nutman, 2008; Mejia and Nutman, 2012).

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Ethical approval

Informed consent for the publication of all images was given by the patient.

Conflict of interest

No conflict of interest to declare.

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