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Images in GI Infection: Gastroduodenal Strongyloidiasis

Roshan Agarwala[1] Nilom Khound[2] Mrinal Chandra Bhattacharya[2] Papari Goswami[3] Pooja Keshan[4]

[1] Department of Gastroenterology, Apollo Hospitals, Guwahati, Assam, India
[2] Department of Internal Medicine, Apollo Hospitals, Guwahati, Assam, India
[3] Department of Pathology, Apollo Hospitals, Guwahati, Assam, India
[4] Department of Pathology, Metropolis Ekopath, Guwahati, Assam, India

Address for correspondence Roshan Agarwala, MD, DM, Department of Gastroenterology, Apollo Hospitals, Guwahati, Assam 781005, India (e-mail: drroshanagarwala@gmail.com).

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A 60-year-old male presented with a history of anorexia, nausea, vomiting, epigastric pain, and generalized weakness for 2 weeks. He was a known case of nephrotic syndrome, diagnosed 3 months back. Since then he was on prednisolone, started at 50 mg daily and then tapered to 20 mg/day. On presentation, he was hemodynamically stable, but malnourished with a body mass index of 17.5 kg/m^2. On evaluation, he was found to have dyselectrolytemia (serum sodium: 121 mEq/L, magnesium: 1.5 mg/dL), severe hypoalbuminemia (serum albumin: 1.7 g/dL), and raised C-reactive protein (93 mg/dL). Upper gastrointestinal (GI) endoscopy revealed diffuse ulcerations in the entire stomach and duodenum (►**Fig. 1**). A biopsy was taken from stomach for histopathological examination. The biopsy showed increased inflammatory cells along with infiltration of the larval forms of *Strongyloides stercoralis* into the lumen of gastric mucosal glands (►**Fig. 2**). The patient was treated with oral

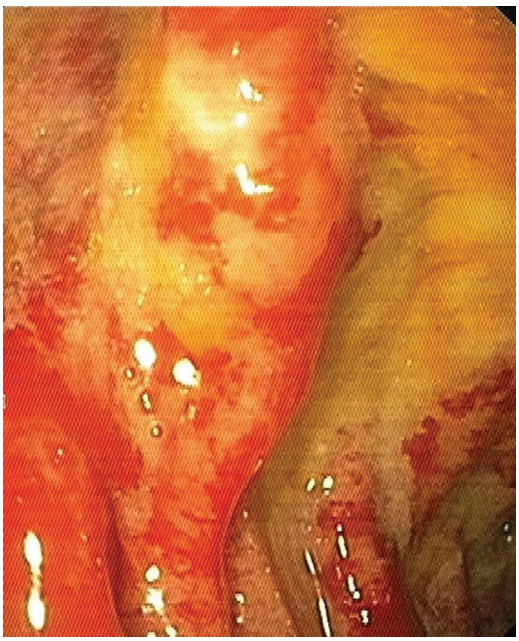

Fig. 1 Duodenal mucosa showing diffuse ulcerations.

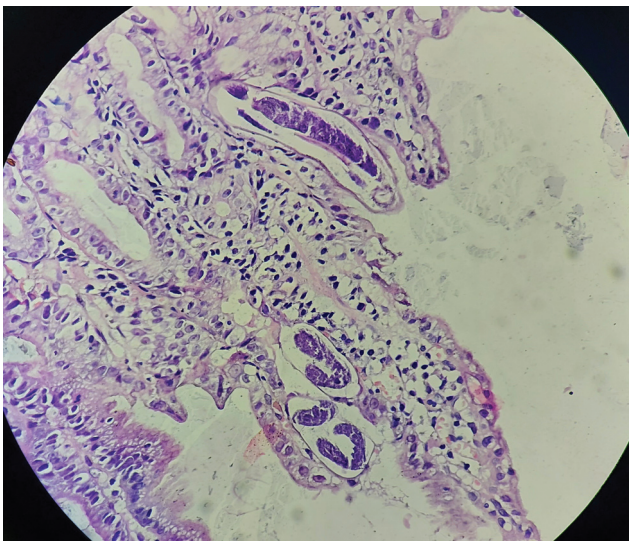

Fig. 2 High-power view (40X) of gastric mucosa showing infiltration by chronic inflammatory cells and larval forms of *Strongyloides stercoralis* in the lumen of gastric glands.

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ivermectin for 2 weeks. On follow-up, the patient had resolution of his GI symptoms as well as healing of gastroduodenal ulcers.

The spectrum of *Strongyloides* infection can range from asymptomatic subclinical disease to life-threatening hyperinfection syndrome and disseminated disease.[1] In hyperinfection syndrome, the GI tract and the lungs are usually involved. Disseminated strongyloidiasis usually occurs in immunocompromised hosts, and can involve multiple organs. Both hyperinfection and disseminated disease have a high mortality in untreated cases (up to 90%).[2] Endoscopic findings include erythema, nodules, exudates, erosion, and ulcers. Although endoscopic findings are not diagnostic, histopathological demonstration of larval forms in biopsy specimen can clinch the diagnosis. Our patient was an immunocompromised patient on immunosuppressant. He developed a hyperinfection syndrome that could be managed with timely diagnosis and treatment.

Ethical Statement
Not applicable.

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All authors contributed equally to the article.

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Conflict of Interest
None declared.

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References
1 Toledo R, Muñoz-Antoli C, Esteban JG. Strongyloidiasis with emphasis on human infections and its different clinical forms. Adv Parasitol 2015;88:165–241
2 Krolewiecki A, Nutman TB. Strongyloidiasis: a neglected tropical disease. Infect Dis Clin North Am 2019;33(01):135–151

