A rare case of small bowel intussusception

A 58-year-old man was referred to our institution with a 2-month history of worsening colicky upper abdominal pain associated with eating and relieved by vomiting, and weight loss.

Gastroscopy revealed grade B reflux esophagitis, erosive gastritis, and duodenitis. A *Campylobacter*-like organism (CLO) test was negative for *Helicobacter pylori*, and duodenal biopsies were normal. Empirical triple therapy with amoxicillin, clarithromycin, and omeprazole was administered. An abdominal ultrasound was normal. A barium follow-through showed an unusual jejunal appearance with dilatation also noted (▶ **Fig. 1**). Subsequent CT enterography suggested proximal jejunal tethering. Double-balloon enteroscopy (DBE) revealed, 10 cm beyond the ligament of Treitz, a large sessile, ulcerated 3 – 4 cm lesion, hemicircumferentially involving the small bowel wall (▶ **Fig. 2**). Multiple biopsies were taken and a tattoo was placed proximal to the lesion. Histopathological analysis showed a dense lymphoid infiltrate including aggregates/germinal centers with perivascular activity, highly suggestive of lymphoma. Immunohistochemistry confirmed low grade B-cell mucosa-associated lymphoid tissue (MALT lymphoma).

At 2 weeks after a first cycle with R-CVP (rituximab, cyclophosphamide, vincristine, prednisolone), the patient presented with severe abdominal pain. A computed tomography (CT) scan revealed jejunal intussusception (▶ **Fig. 3**), but surgical review recommended conservative management. A second DBE showed no change in the lesion (▶ **Video 1**) after three further cycles of R-CVP. For this reason, the patient's chemotherapy was changed to a more aggressive scheme with R-CHOP (rituximab, cyclophosphamide, hydroxydaunorubicin, oncovin, and prednisone) for a further three cycles, and a third DBE revealed a marked improvement with significant regression of the mass (▶ **Fig. 4**, ▶ **Video 2**).

MALT lymphoma is the commonest extranodal small B-cell non-Hodgkin's lymphoma [1]. Of extranodal lymphomas, 37 % occur in the gastrointestinal tract, with 7.5 % involving the small bowel [2]. While almost 90 % of gastric MALT lymphomas are caused by *Helicobacter pylori* [3], the etiology of jejunal MALT lymphoma is uncertain [4]. DBE is a useful tool for the diagnosis and follow-up of small bowel lymphoma [5].

Video 1

Double-balloon enteroscopy (DBE) showed no change in the lesion after four cycles of R-CVP (rituximab, cyclophosphamide, vincristine, prednisolone).

Video 2

After three cycles of R-CHOP (rituximab, cyclophosphamide, hydroxydaunorubicin, oncovin, and prednisone), double-balloon enteroscopy (DBE) revealed a marked improvement with significant regression of the mass.

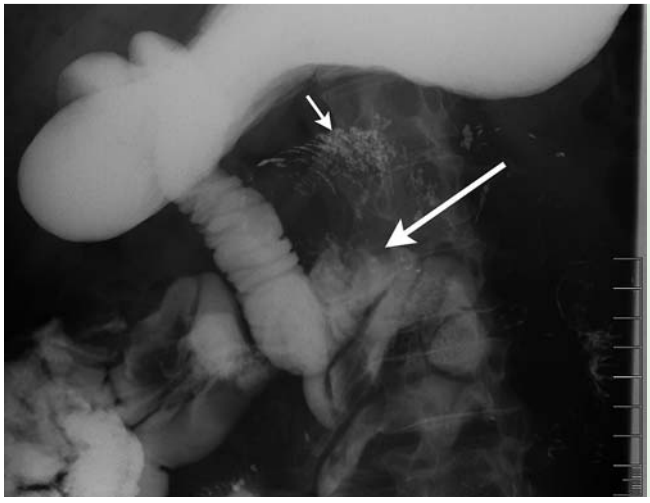

Fig. 1 Unusual jejunal appearance with dilatation, showed by a barium follow-through (typical coiled spring appearance: large arrow, intussusceptum; small arrow: intussuscipiens).

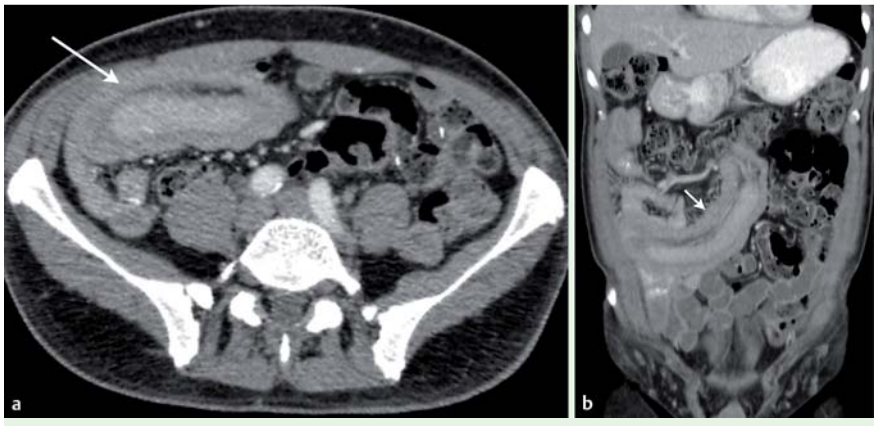

Fig. 3 Jejunal intussusception revealed by computed tomography (CT) scan: **a** axial view; **b** coronal view.

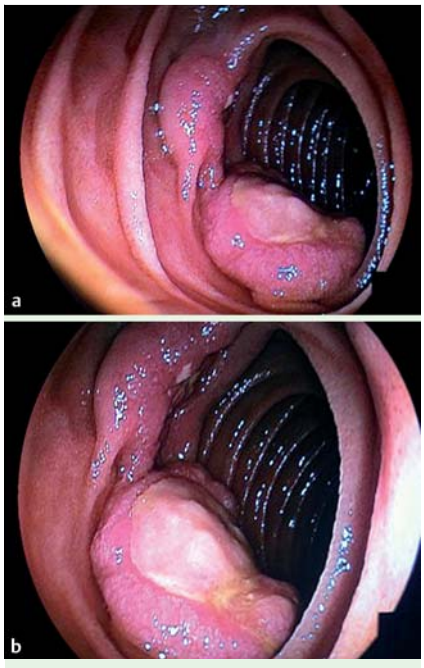

Fig. 2 **a, b** A large sessile, ulcerated 3 – 4 cm lesion, hemicircumferentially involving the small bowel wall.

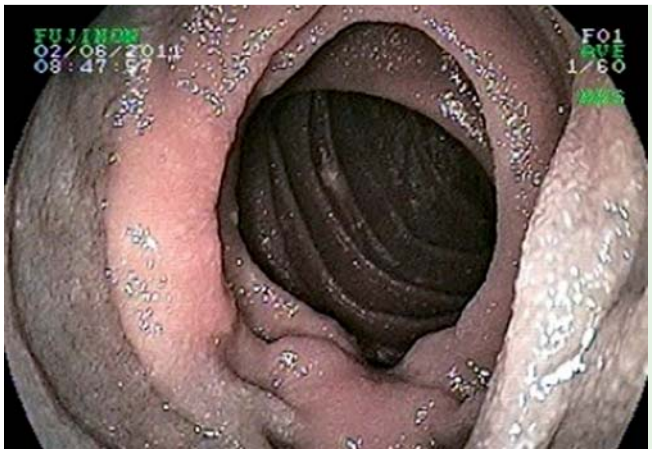

Fig. 4 Marked improvement with significant regression of the jejunal lesion at double-balloon enteroscopy (DBE).

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Bibliography

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