Multifocal plasmacytoma presenting with upper gastrointestinal bleeding, chronic diarrhea, and multiple sites of small-bowel intussusception

Fig. 1 Endoscopic view of a duodenal mass in a 48-year-old with intermittent abdominal pain, chronic diarrhea, and acute massive upper gastrointestinal bleeding.

Fig. 2 Bleeding stopped after spraying Histoacryl.

Fig. 3 Computed tomography (CT) showing the two sites of small-bowel intussusception.

A 48-year-old man was referred to our hospital because of intermittent abdominal pain and chronic diarrhea for 2 months and acute massive upper gastrointestinal bleeding, which had commenced a few days ago. Esophagogastroduodenoscopy (EGD) showed an ulcerating mass in the second part of the duodenum, located just beyond the ampulla (● Fig. 1). The bleeding was successfully stopped by injecting epinephrine into the tumor followed by spraying with Histoacryl [1] (● Fig. 2). A few days after the procedure the patient developed acute, severe abdominal pain

and nausea and vomiting. Computed tomography (CT) showed intussusception of two long segments of the ileum associated with multiple intraluminal masses. The first segment was in the jejunum and the second was ileocolic intussusception (● Fig. 3). There were also multiple bony metastases and lymphadenopathy in the paravertebral region. A biopsy sample from the duodenum showed hematological malignancy with plasmacytic differentiation, and was positive for CD45, CD138, c-lambda, and c-kappa, and negative for CD20, CD30, and CD3 (● Fig. 4). The bone

marrow biopsy was compatible with multiple myeloma. After treatment with intravenous chemotherapy, the patient's clinical condition improved and the abdominal pain as well as small-bowel obstruction disappeared a few days later.

Abnormalities in B-cell transformation result in the development of an aberrant or malignant plasma cell called the plasmablast. These cells can proliferate in the bone marrow, giving rise to multiple myeloma or primary extramedullary plasmacytoma, which is a rare form of the disease [2]. Extramedullary plasmacytoma accounts for 20% of plasmablast-related diseases but only 7% of cases involve the gastrointestinal tract. The most commonly involved organs, in the order of decreasing frequency, are the stomach, jejunum, ileum, colon, and rectum [3]. Duodenal involvement is rare [2–5]. Endoscopic findings in plasmacytoma show no specific characteristics: it may manifest as discrete ulcers, ulcerating mass, thickening of the mucosal fold, or even as a mucosal polyp [2]. The differential diagnoses are duodenal lymphoma, adenocarcinoma of the duodenum, and pancreatic head cancer invading the duodenum. Hence the final diagnosis is based on the histopathology and immunohistochemistry.

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Competing interests: None

Fig. 4 **a** Histopathological section showing atypical cells with vesicular nuclei, prominent nucleoli and amphophilic cytoplasm. **b** The sample stained positive for CD138.

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