An unusual cause of recurrent vomiting

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QUESTION

A 54-year-old man was referred to our hospital with a 3-month history of intermittent vomiting. The patient did not have history of abdominal surgery or trauma. The medical history was unremarkable, and the patient did not have a recent history of NSAID usage. An upper endoscopy at an outside hospital revealed food retention in the stomach, and gastric outlet obstruction was impressed. An abdominal x-ray was performed (Figure 1a), followed by an upper GI series study (Figure 1b). An upper endoscopy was performed after nasogastric tube drainage of the stomach and a lesion was identified at 2nd portion of the duodenum (Figure 2a).

What is your diagnosis?

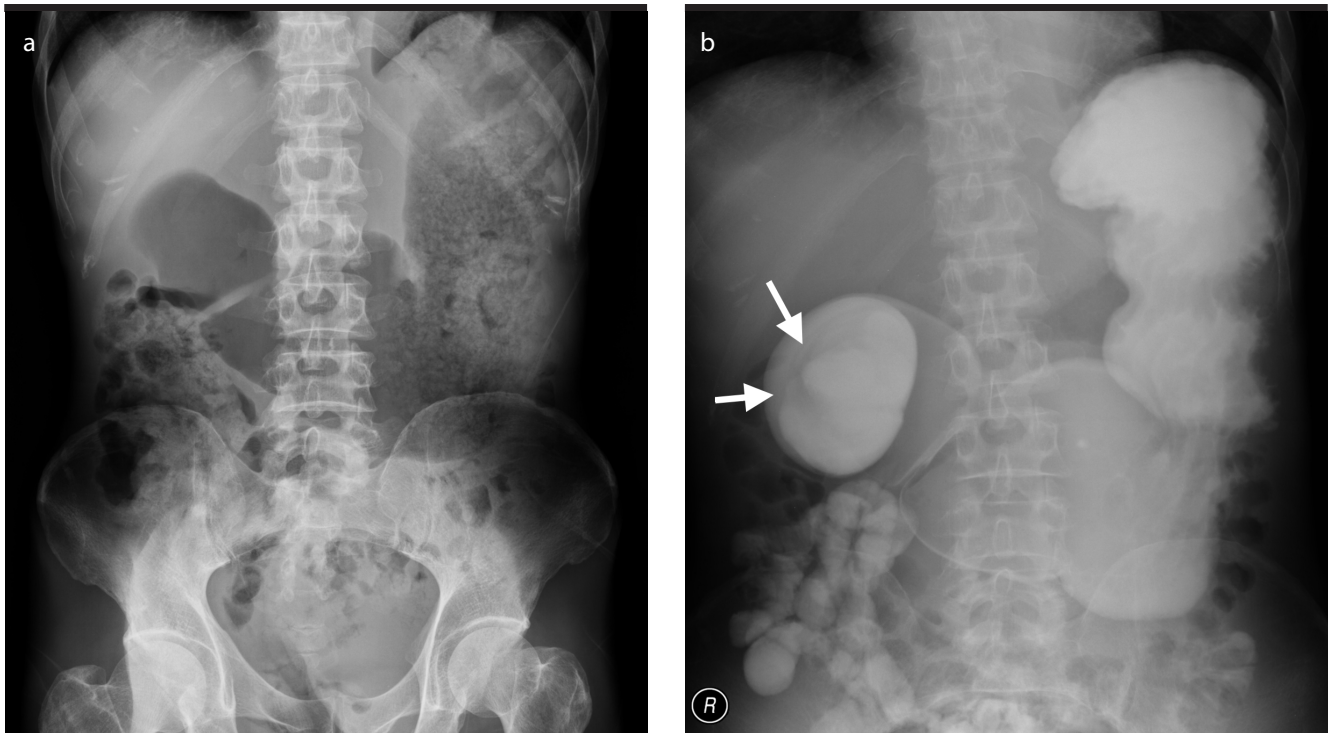

Figure 1. a, b. Abdominal x-ray of the patient revealed a distended stomach with food debris (a); an upper GI series study of the patient suggested an obstructive lesion in the duodenal bulb (b) (arrows).

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ANSWER

Duodenal web with duodenal obstruction

The abdominal x-ray image revealed a distended stomach (Figure 1a), and the obstructive lesion was identified in the duodenal bulb (Figure 1b). Endoscopy revealed a pin hole in the duodenal bulb to 2nd portion (Figure 2a). A duodenal web with duodenal obstruction was impressed based on the endoscopic finding and medical history. After discussing with patient regarding surgery or endoscopic therapy, an endoscopic therapy with a Dual knife (Figure 2b) for web incision was performed. The scope was passed smoothly into the deep duodenum, and no further lesion was found. The obstructive symptom of the patient was improved, and he had no recurrent symptoms during a 6-month follow-up.

Duodenal web or diaphragm presenting with duodenal obstruction is a rare clinical entity in the adults. Incomplete vacuolization of the intestinal core is a widely accepted mechanism in the development of the duodenal web and was the third common cause of duodenal obstruction in the new borns(1). The presenting symptoms included bilious vomiting, dehydration, and weight loss. X-rays of the upper abdomen may demonstrate the "wind sock sign" of the duodenum.

The location of the diaphragm is preampullary in 70% cases, postampullary in 25% cases, and 5% have intra-ampullary lesion (1). The majority of the cases are present in newborns with complete duodenal obstruction and adults with incomplete duodenal obstruction and have a delayed presentation at an age between 34 and 78 years (2). The opening in the diaphragm varies from 2 to 10 mm in diameter and is more often single than multiple, also usually eccentric rather than central. Treatment of the web may be surgical repair, endoscopic balloon dilatation, or endoscopic incision of the diaphragm (3), as in this case.

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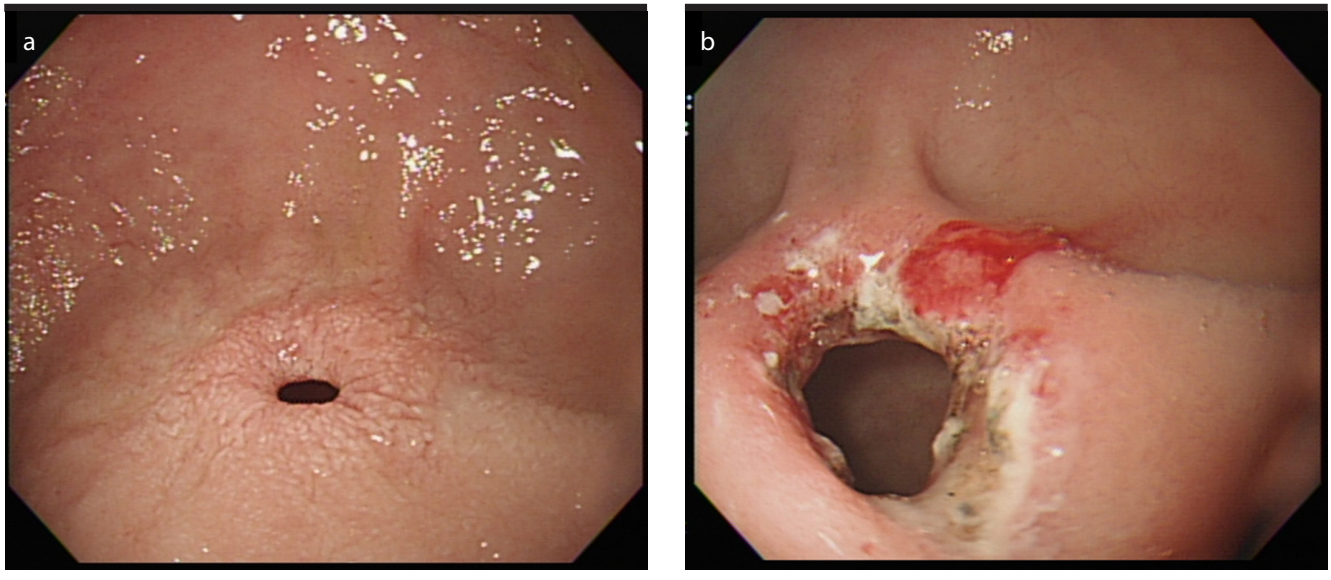

Figure 2. a, b. Endoscopic view of the patient. A web with narrowed lumen was found in the duodenum and the endoscope failed to pass it (a); Endoscopic view after incision of the web. The endoscope can pass through the lumen into 3rd portion of duodenum (b).