

## Radiology for the surgeon Soft-tissue case 53

### Presentation

A 67-year-old man presented to the emergency department, complaining of sudden upper abdominal pain and vomiting. Physical examination of the abdomen revealed a painful epigastric mass and a painless, pulsatile lower abdominal mass. The patient's medical history included a Billroth II gastrectomy for peptic disease 20 years previously, aortic valve replacement 5 years earlier (with long-term anticoagulation) and a known abdominal aortic aneurysm. Computed tomography (Fig. 1) was done, and the following day his pain subsided spontaneously.

Can you make the diagnosis?



FIG. 1.

### Diagnosis

#### Postgastrectomy jejuno-gastric intussusception

Jejuno-gastric intussusception is a rare complication of gastrectomy. It can occur from days to years after the procedure. Its estimated frequency is approximately 0.1%,<sup>1,2</sup> and close to 300 cases have been reported in the medical literature.

Endoscopy remains the main diagnostic tool and an alternative to surgical treatment. However, because the condition is so rare and is seldom suspected at the initial presentation, other diagnostic proce-

dures are frequently done before esophagogastroduodenoscopy.

Plain abdominal radiography may reveal a homogeneous mass outlined by intragastric air,<sup>2</sup> but a high degree of awareness is still needed to make the diagnosis. Barium contrast studies can provide an accurate, easy diagnosis and evaluate any complications.<sup>3</sup>

Some have used ultrasonography.<sup>1</sup> The typical findings here are an echogenic centre surrounded by concentric echogenic rings with a peripheral rim of hypoechogenicity.<sup>1</sup>

Computed tomography is gaining wide acceptance as a diagnostic tool in abdominal pain and acute abdomen. In jejuno-gastric intussuscep-

tion, computed tomography findings are characteristic and similar to enteroenteric intussusception. A target appearance (see Fig. 1) with a low-attenuation component that is crescent-shaped, swirl-like and eccentric, representing mesenteric fat, are the common findings.<sup>1</sup> The condition progresses to ischemia through 4 stages: initially a target mass is seen (stage 1), followed by a layering pattern (stage 2), loss of the layering pattern due to edema (stage 3) and, finally, bowel thickening and loss of fascial planes (stage 4). The presence of intramural air can also indicate bowel necrosis.

Although a lead point, like a

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FIG. 2.

leiomyoma or polyp, must always be sought, it is rarely present in jejuno-gastric intussusception.

In the case reported, the diagnosis was made by computed tomography. Spontaneous reduction of the intussusception occurred, and by the time endoscopy was done, no invagination was visible (Fig. 2). Computed tomography done 5 days after the

initial one showed only edema of the gastric wall. No operative procedure was done, and the patient was followed up for 2 months without recurrence of his pain.

#### References

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3. Denath FM, Kweka CL. Retrograde intussusception of the bypassed duodenojejunal segment after Roux-en-Y gastrectomy: computed tomography findings. *Can Assoc Radiol J* 1991;42:135-8.

### Correction

In Irshad K, Feldman LS, Chu VF, Dorval J-F, Baslaim G, Morin JE. Causes of increased length of hospitalization on a general thoracic surgery service: a prospective observational study. *Can J Surg* 2002;34:264-8, the authors wish to add the following acknowledgement: Dr. Talat Chughtai performed chart review previous to the establishment of this prospective study.

The authors regret the omission of this acknowledgement at the time of publication.