Epigastric discomfort in a 91-year-old woman

CLINICAL PRESENTATION

A 91-year-old woman presented to our hospital with back pain and upper abdominal discomfort. The coronal image of abdominal CT revealed the wall thickness of the upper stomach and abdominal ascites with left pleural effusion (figure 1). Gastrointestinal endoscopy showed the lumen narrowing near the wall thickening with remarkable mucosal oedema of the gastric wall in the fornix of the stomach (figure 2). Gastric tumours or polyps were not observed in the stomach.

QUESTION

What is the most likely diagnosis causing this patient's epigastric discomfort?

ANSWER

Gastric intussusception.

The patient was diagnosed with the invagination of the stomach (gastric intussusception). Adult intussusception is a rare condition, with an incidence of 2–3 cases/1 000 000 population per year¹; gastroduodenal intussusception accounts for approximately 10% of all adult intussusception cases per year (2–3/10 000 000).² In general, a large polyp or tumour of the stomach acts as the head of the invagination and causes the gastric

Figure 2 Gastrointestinal endoscopy showing the lumen of the stomach narrowing near the wall thickening.

mucosa to protrude into the antrum of the stomach or duodenum. In this case, no tumour (including extra luminal submucosal lesions, such as gastrointestinal stromal tumour) was observed in the stomach, which is very rare. As similar to our case, there is the only one case report which described the absence of a polypoidal lead point in the patient who was diagnosed with the gastric intussusception.³ One significant difference between the case which we have described and the previous case is that our patient does not have the complications associated with portal hypertension such

Figure 1 Abdominal CT of the upper stomach showing a typical 'target-shaped appearance'.

Figure 3 Gastrointestinal endoscopy showing invagination and repositioning of the stomach.

as gastro-oesophageal varices or partial portal venous thrombosis. The narrowing lumen of the stomach was gradually released and repositioned by the insufflation from endoscopy (figure 3). Symptoms disappeared, and the patient recovered after endoscopy. For this reason, it was assumed that the smooth muscle of the gastric wall in the fornix had relaxed and flipped to the side of lumen, which sequentially blocked blood drainage, causing oedema of the gastric mucosa and facilitating further invagination. The image of the invagination was target-shaped, or 'bull's-eye', with concentric circles on a CT scan, a diagnosis of gastric intussusception was made.⁴ The patient has since been followed for 2 years with no recurrence.

Shigetsugu Takano ,¹ Akihiro Suzuki,² Yoshio Masuya,² Hiroshi Suzuki,² Masayuki Ohtsuka¹

¹General Surgery, Chiba University, Chiba, Japan

²Department of Gastroenterology, Tatsumi Hospital, Ichihara, Japan

Correspondence to Dr Shigetsugu Takano, General Surgery, Chiba University, Chiba 260-8670, Japan; stakano@faculty.chiba-u.jp

Contributors ST, AS and YM were involved in the examinations and wrote the manuscript. HS constructed the figures and editing of the manuscript. MO provided clinical supervision and edited the manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

© Author(s) (or their employer(s)) 2021. No commercial re-use. See rights and permissions. Published by BMJ.

To cite Takano S, Suzuki A, Masuya Y, et al. *Frontline Gastroenterology* 2021;**12**:537–538.

Received 2 June 2020

Revised 10 July 2020

Accepted 12 July 2020

Published Online First 7 August 2020

Frontline Gastroenterology 2021;**12**:537–538. doi:10.1136/flgastro-2020-101578

ORCID iD

Shigetsugu Takano <http://orcid.org/0000-0002-6495-0422>

REFERENCES

- 1 Potts J, Al Samaraee A, El-Hakeem A. Small bowel intussusception in adults. *Ann R Coll Surg Engl* 2014;**96**:11–14.
- 2 Azar T, Berger DL. Adult intussusception. *Ann Surg* 1997;**226**:134–8.
- 3 Behrooz A, Cleasby M. Gastrogastroic intussusception in adults: a case report with review of the literature. *BJR Case Rep* 2018;**4**:20180006.
- 4 Vikram R, McCulloch AS, Zealley IA. True gastrogastroic intussusception: a rare radiologic diagnosis with surgical correlation. *AJR Am J Roentgenol* 2006;**186**:585–6.