might enhance the release of CgA from non-neoplastic, yet functionally abnormal, neuroendocrine cells, thus giving rise to a false-positive diagnosis. Therefore, during the evaluation of elevated CgA levels, giving particular attention to the use of PPIs as a possible cause might help to prevent the need for expensive and unnecessary diagnostic procedures ordered for revealing NETs.

REFERENCES

- Ferrari L, Seregni E, Bajetta E, et al. The biological characteristics of chromogranin A and its role as a circulating marker in neuroendocrine tumours. Anticancer Res 1999; 19(4C): 3415-27.
- Eriksson B, Arnberg H, Oberg K, et al. A polyclonal antiserum against chromogranin A and B--a new sensitive marker for neuroendocrine tumours. Acta Endocrinol (Copenh) 1990; 122: 145-55.
- Nobels FR, Kwekkeboom DJ, Coopmans W, et al. Chromogranin A as serum marker for neuroendocrine neoplasia: comparison with neuron-specific enolase and the alpha-subunit of glycoprotein hormones. J Clin Endocrinol Metab 1997; 82: 2622-8.
- Vezzosi D, Walter T, Laplanche A, et al. Chromogranin A measurement in metastatic well-differentiated gastroenteropancreatic neuroendocrine carcinoma: screening for false positives and a prospective follow-up study. Int J Biol Markers 2011; 26: 94-101.

Özlem TURHAN İYİDİR, Ali Rıza ÇİMEN, Ceyla Konca DEĞERTEKİN, Füsun BALOŞ TÖRÜNER, Nuri ÇAKIR, Metin ARSLAN

Department of Endocrinology and Metabolism Disease, Gazi University, School of Medicine, Ankara

Mesenteric Meckel's diverticulum

Mezenterik Meckel divertikülü

To the Editor,

Meckel's diverticulum is the most common congenital anomaly of the gastrointestinal tract (1). The usual location is on the antimesenteric border of the distal ileum, usually within about 60–100 cm of the ileocecal valve. On rare occasions, it may be located on the mesenteric border of the ileum, the so-called mesenteric Meckel's diverticulum. This Meckel's diverticulum attached to the mesenteric border is a distinct variant of the Meckel's di-

verticulum and has been considered a "forgotten entity" (2,3). Existence of the mesenteric Meckel's diverticulum underlines the need for a revision in the understanding and classification of the Meckel's diverticulum (Table 1) (4).

A nine-year-old boy presented with right lower abdominal pain of 10 hours duration. There was a history of nausea and anorexia. On general physi-

Table 1. Various case reports in the literature of mesenteric Meckel's diverticulum				
Chaffin (5)	1941	Mesenteric	Asymptomatic	
Segal (3)	2004	Mesenteric	Diverticulitis	
Sarioglu-Buke (6)	2008	Mesenteric	Rectal bleeding	
Manukyan (4)	2009	Mesenteric	Diverticulitis	
Seitun (2)	2011	Mesenteric	Diverticulitis	
Present case report	2011	Mesenteric	Asymptomatic	

Address for correspondence: Imtiaz WANI

Department of General Surgery, Sheri-Kashmir Institute of Medical Sciences, Srinagar, Kashmir, India 190009

E-mail: imtazwani@gmail.com

Manuscript received: 01.11.2011 Accepted: 11.01.2012

doi: 10.4318/tjg.2013.0477

cal examination, pulse of 98/min, blood pressure of 100/70 mmHg, and temperature of 39°C were recorded. Systemic examination was normal. On abdominal examination, tenderness and rebound tenderness in the right iliac fossa were present. Upright X-ray of the abdomen was normal. Ultrasonography of the abdomen was consistent with the diagnosis of appendicitis. The patient underwent emergency appendectomy via gridiron incision. The appendix was retrocecal in position and inflamed and contained a single fecalith. An exploration of 100 cm of terminal ileum was done for presence of incidental Meckel's diverticulum. At about 90 cm from the ileocecal junction, a diverticulum measuring 7x2.2 cm was identified. Careful dissection showed that this diverticulum was subserosal, intramesenteric, and had a narrow base with small mesodiverticulum arising from the mesenteric border of the ileum (Figure 1A, 1B). Diagnosis of Meckel's diverticulum was made and diverticulectomy was done. Histopathology confirmed the diagnosis of Meckel's diverticulum with no presence of an ectopic tissue. The postoperative period was uneventful.

Mesenteric-sided Meckel's diverticulum was first reported by Chaffin (5) in 1941. This mesenteric location can be subserosal or intramesenteric, and can possess mesodiverticulum. When intramesenteric, transillumination is required for its demonstration. Persistence of a very short vitelline artery that creates a mesodiverticular band from the mesentery to the tip of the diverticulum, which diverts the diverticulum away from the antimesenteric border during rapid growth, leads to mesenteric Meckel's diverticulum.

Meckel's diverticulum should be classified (Wani

REFERENCES

- Arnold F, Pellicane V. Meckel's diverticulum: a ten-year experience. Am Surg 1997; 63: 354-5.
- Seitun S, Vito LD, Rossi UG, et al. Perforated Meckel's diverticulitis on the mesenteric side: MDCT findings. Abdom Imaging 2012; 37: 288-91.
- Segal SD, Albrecht DS, Belland KM. Rare mesenteric location of Meckel's diverticulum, a forgotten entity: a case study aboard USS Kitty Hawk. Am Surg 2004; 70: 985-8.

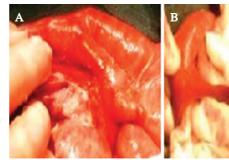


Figure 1. (A) The subserosal and intramesenteric nature of the mesenteric Meckel's diverticulum. (B) The location of the Meckel's diverticulum on the mesenteric side.

and Nawab's classification) as antimesenteric or mesenteric.

Encountering asymptomatic mesenteric Meckel's diverticulum is a very rare situation and treatment is a conflicting point. Existence of an inflammatory process may obviate the successful management of a diverticulum requiring diverticulectomy or resection and anastomosis. The lack of knowledge regarding mesenteric Meckel's diverticulum and the differential diagnosis of ileal duplication, hypertrophic ileal tuberculosis, gut lymphoma gastrointestinal stromal tumor (GIST), lymphoma, adenocarcinoma, and metastatic deposit may require diverticulectomy for confirmation of the diagnosis. Prophylactic resection of the asymptomatic incidental mesenteric Meckel's diverticulum had been recommended by Segal (3). This rare localization deserves more attention and is more alarming than a usual antimesenteric location because it may erode the mesentery and rupture into the mesenteric vasculature during the inflammatory process (6).

- Manukyan MN, Kebudi A, Midi A. Mesenteric Meckel's diverticulum: a case report. Acta Chir Belg 2009; 109: 510-2.
- Holiinshead WH. The jejunum, ileum, and colon. In: Hollinshead WH, ed. Anatomy for surgeons: volume 2. New York: Harper and Row, 1971.
- Sarioglu-Buke A, Corduk N, Koltuksuz U, et al. An uncommon variant of Meckel's diverticulum. Can J Surg 2008; 51: E46-E47.

Imtiaz WANI, Nawab KHAN, Sameer NAQASH, Nisar CHOUDRI, Khursheed WANI

Department of General Surgery, Sheri-Kashmir Institute of Medical Sciences, Srinagar, India