



Images in Clinical Medicine

Simultaneous presentation of macrodactylia fibrolipomatosis and intestinal lipomatosis

Chao-Chuan Wu^{a,b}, Bor-Gang Wu^{a,b,*}, Cheng-Yi Chan^{b,c}, Yao-Jen Chang^{a,b}^aDivision of General Surgery, Department of Surgery, Buddhist Tzu Chi General Hospital, Taipei Branch, New Taipei City, Taiwan^bSchool of Medicine, Tzu Chi University, Hualien, Taiwan^cDepartment of Diagnostic Imaging, Buddhist Tzu Chi General Hospital, Taipei Branch, New Taipei City, Taiwan

ARTICLE INFO

Article history:

Received 18 May 2012

Received in revised form

26 May 2012

Accepted 19 June 2012

A 42-year-old woman presented to the emergency department with acute periumbilical pain followed by nausea and vomiting which had continued for 2 days. She had had two prior cesarean deliveries, 7 and 10 years previously, as well as several similar episodes of abdominal pain in the past year, all of which were resolved after conservative treatment. Upon arrival at the emergency room, she had a temperature of 36.4°, a pulse of 70/minute, and blood pressure readings of 110/70 mmHg. Her white blood cell count was 10,400/ μ L with 85.6% segmented neutrophils. Physical examination revealed a palpable soft mass over the right abdominal region without tenderness. The patient also presented congenital macrodactyly, and radiography displayed the bony enlargement of her fingers (Fig. 1). Abdominal Computed Tomography (CT) revealed small bowel lipomatosis with intussusception (Figs. 2 and 3). As a result, the patient underwent laparoscopic surgery immediately. Numerous intramural lipomatous masses of varying sizes were observed intraoperatively between the ligament of Treitz and the distal ileum. There were also some subserosal lipomas on the mesentery. An ileoileal intussusception was reduced extracorporeally and a 35 cm segment of ileum was resected. Surgical pathology revealed multiple submucosal lipomas of 1–7 cm in the intestinal lumen (Fig. 4). The postoperative course was uneventful and the patient recovered completely.

Small bowel lipomatosis is a rare disease even though it can be easily diagnosed by means of CT, given that CT shows diffusion as well as multiple intramural masses with fat densities [1]. Intestinal



Fig. 1. Radiograph shows hypertrophy of the third, fourth, and fifth digits of the right hand as well as bony enlargement of these fingers.

* Corresponding author. Division of General Surgery, Department of Surgery, Buddhist Tzu Chi General Hospital, Taipei Branch, 289, Jianguo Road, Xindian District, New Taipei City, Taiwan. Tel.: +886 266 289 779; fax: +886 266 289 009.
E-mail address: brogen@tzuchi.com.tw (B.-G. Wu).



Fig. 2. Axial view on contrast-enhanced CT reveals small bowel intussusception with a target sign (white arrow).



Fig. 3. Coronal view on contrast-enhanced CT reveals multiple dense fatty masses in the small bowel (white arrows) and segmental intussusception in the ileum (black arrow).

obstruction or intussusception often appears in cases of small bowel lipomatosis, which are usually treated by means of surgical intervention. Macroductyia fibrolipomatosis is a form of macroducty in which there is bony enlargement with a diffused

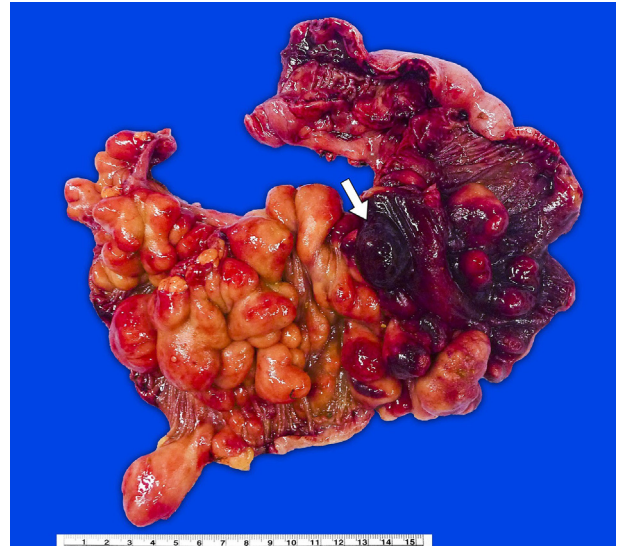


Fig. 4. Photograph shows the resected specimen, which consists of a 35 cm segment of the terminal ileum. Multiple polypoid lipomas up to $7 \times 4 \times 3$ cm are seen in the intestinal lumen. Congestion and erosion are noted in the obstructed segment (white arrow).

overgrowth of adjacent fibrofatty tissue [2]. This mainly affects adjacent digits in a median nerve distribution of the hands.

Although both of these conditions are rare, there are three case reports in the literature [3, 4] in which macroductyia fibrolipomatosis and small bowel lipomatosis are presented together. Unlike the cases previously described in other studies, our patient did not have chronic diarrhea. She had right-handed dactylomegaly, as did the patient described by Kenkare and Ainapurapu [3], which was not limited to a median nerve distribution. The association between these two conditions is unclear, but a complex syndrome with a genetic cause has been considered [4]. Since the reports of the combination of macroductyia fibrolipomatosis and intestinal lipomatosis have been increasing, this situation seems to not be a casual event and requires further research. Unlike macroducty, intestinal lipomatosis would not be diagnosed if there were no related symptoms. A simultaneous presentation of macroducty and abdominal pain might be a hint for an early diagnosis of intestinal lipomatosis.

References

- [1] Komagata T, Takebayashi S, Hirasawa K, Fukawa T, Arai M. Extensive lipomatosis of the small bowel and mesentery: CT and MRI findings. *Radiat Med* 2007;25: 480–3.
- [2] Yaghmai I, McKowne F, Alizadeh A. Macroductyia fibrolipomatosis. *South Med J* 1976;69:1565–8.
- [3] Kenkare S, Ainapurapu B. Macroductyia fibrolipomatosis presenting as a small bowel obstruction. *South Med J* 2010;103:248–9.
- [4] Mazziotti S, Salamone I, Vinci S, Pandolfo A. Macroductyia fibrolipomatosis associated with multiple small-bowel lipoma. *Am J Roentgenol* 2006;186: 1195–6.