An unusual cause of recurrent abdominal pain in a middle-aged man

Yuxuan Tang\textsuperscript{1,2}, Xiufan Ni\textsuperscript{1}, Sujun Gao\textsuperscript{1}, Li Zhang\textsuperscript{1}, Jian Yin\textsuperscript{1}, Lei Chen\textsuperscript{1} and Zhen Zhu\textsuperscript{1,3}

The first two authors contributed equally to this article and Zhen Zhu is the corresponding author of this article (E-mail: alenzhu_1982@163.com).

Authors’ institutions

\textsuperscript{1}Department of Gastroenterology, Clinical Medical College, Yangzhou University/Northern Jiangsu People’s Hospital Affiliated to Yangzhou University, P.R. China.

\textsuperscript{2}Department of Internal Medicine, Community Healthcare Center of Touqiao, Yangzhou, P.R. China.

\textsuperscript{3}Department of Internal Medicine, Community Healthcare Center of Hangji, Yangzhou, P.R. China.

Corresponding author

Zhen Zhu
Department of Gastroenterology, Clinical Medical College, Yangzhou University/Northern Jiangsu People’s Hospital Affiliated to Yangzhou University, No. 98, West Nantong Road, Yangzhou, Jiangsu Province, P.R. China, 225001.
Department of Internal Medicine, Community Healthcare Center of Hangji, No. 79, Fumin Street, Hangji Town, Yangzhou, P.R. China, 225001.
E-mail: alenzhu_1982@163.com

Specific author contributions: Dr. Yuxuan Tang, Xiufan Ni, Sujun Gao, Li Zhang, Jian Yin and Lei Chen: acquisition of data and drafting of the manuscript; Dr. Zhen Zhu: critical revision of the manuscript for important intellectual content.

Conflict of interest: The authors declare that they have no conflicts of interest.

Funding: No funding was received for this study.
Keywords: Intestinal neoplasm. Fibrolipoma. Small intestine intussusception. Computed tomography.

Dear Editor,
A 54-year-old man was hospitalized with intermittent periumbilical pain for 1-month duration. Abdominal contrast-enhanced computed tomography (CT) revealed target-sign and a fat density mass measuring 2.0 × 2.5-cm in the distal ileum. Part mesenteric tissues and blood vessels were embedded and the wall of the affected intestinal tube was thickened and edematous (Fig. 1. A). His symptom was alleviated after conservative treatment and he refused further management. The patient was hospitalized again with the same symptoms and abdominal CT findings 4 years later (Fig. 1. B, C). Exploratory laparotomy was performed. A palpable mass in the ileum was found measuring 3.0 × 3.0-cm and partial enterectomy was performed. Postoperative histopathology revealed the resected mass was composed of proliferating mature adipocytes surrounded by few fibrous connective tissue (Fig. 1. D, HE × 100). Hyperplastic fibroblast and inflammatory exudative necrotic tissue were found on the surface of the mass. The patient was diagnosed as ileum fibrolipoma with intussusception. He was discharged home uneventfully and no symptoms was observed in 12 months follow-up.

Discussion
Histologically, lipomas are classified into classic lipomas and mixed variants such as fibrolipoma, angiolipoma, myolipoma, etc. Fibrolipoma is a benign soft tissue tumor with hyperplasia of fibrous connective tissue as well as mature adipose cells which differs from lipoma (1). Fibrolipoma usually occurs in middle-aged person and a slight female predominance has been observed in the cases of fibrolipoma (without significant gender difference) (2). Various tissues can be involved, including the trachea, oral cavity, orbit, cheek, back, extremities, and even internal organs. Fibrolipoma has been infrequently reported in the gastrointestinal tract. Symptoms correlate with the size of the tumor. When small, fibrolipomas are usually asymptomatic and often discovered incidentally, when larger, they can be
manifested clinically. Intestinal fibrolipoma usually presents with hemorrhage, abdominal pain, hematemesis, obstruction, vomiting and dyspepsia. CT and endoscopic ultrasonography (EUS) performed characteristically in diagnosing fibrolipoma. CT of intestinal fibrolipoma usually demonstrates a circular or oval, sharply margined tumor with fat-density or mixed density. EUS is useful for differentiating fibrolipoma from intestinal stromal tumor or lipoma by the findings of heterogeneous hyperechoic and detection of the tumor origin (3, 4). Under the microscope, fibrolipoma is made of mature adipocytes within lobules of dense collagen fibers, it can easily be distinguished from conventional lipoma because of more represented fibrous connective tissues. If asymptomatic, a fibrolipoma needs no intervention. If symptomatic, laparoscopic or open surgery was recommended.

Fig. 1. A, B, C. Abdominal contrast-enhanced CT revealed target-sign and a fat density mass measuring 2.0 × 2.5-cm in the distal ileum. Part mesenteric tissues and blood vessels were embedded and the wall of the affected intestinal tube was
thickened and edematous. **D.** Postoperative histopathology revealed the resected mass was composed of proliferating mature adipocytes surrounded by few fibrous connective tissue (HE × 100).

**References**


