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IMAGE | SMALL BOWEL

Endoscopic Diagnosis of Calcifying Fibrous Tumor of the Ileum

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CASE REPORT

A 47-year-old woman was admitted to our hospital with right lower abdominal pain persisting over 2 months. She was a non-drinker and a never-smoker, and she'd had an appendectomy 23 years previously. Except for right lower abdominal pain, no remarkable findings were recognized on physical examination. Blood tests were also unremarkable.

The cause of abdominal pain could not be determined by ordinary physical and laboratory examinations, so we performed a lower gastrointestinal (GI) endoscopy. It revealed a submucosal tumor (20 mm) at the terminal ileum (Figure 1). The tumor was smooth and spherical, and it showed no surface ulceration or hemorrhage, suggesting that it was not highly malignant. Cushion sign was negative, and lipoma was ruled out. Endoscopic ultrasonography (EUS) showed foci of calcification in the tumor (Figure 2). Image resolution of the thin EUS probe was not sufficient to observe in detail, but the origin of the tumor appeared to be the fourth layer, namely, the muscular layer. Whole-body computed tomography (CT) found no other neoplastic lesions. CT images showed that the ileal tumor was a mass lesion with coarse calcification. The characteristic calcification of the tumor led to a diagnosis of probable calcifying fibrous tumor (CFT). Physicians recommended surgical removal because of persistent pain and the small possibility of it being a GI stromal tumor (GIST) that might present calcification.

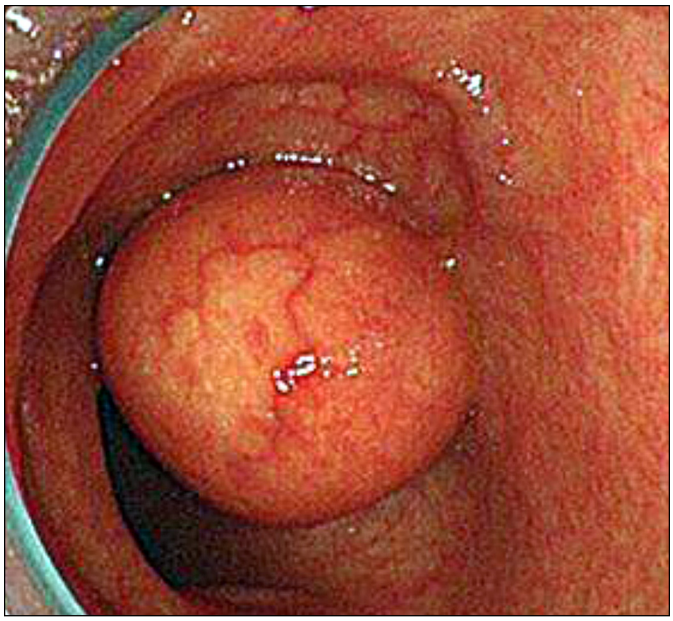

Figure 1. Lower gastrointestinal endoscopy showing a spherical submucosal tumor in the terminal ileum.

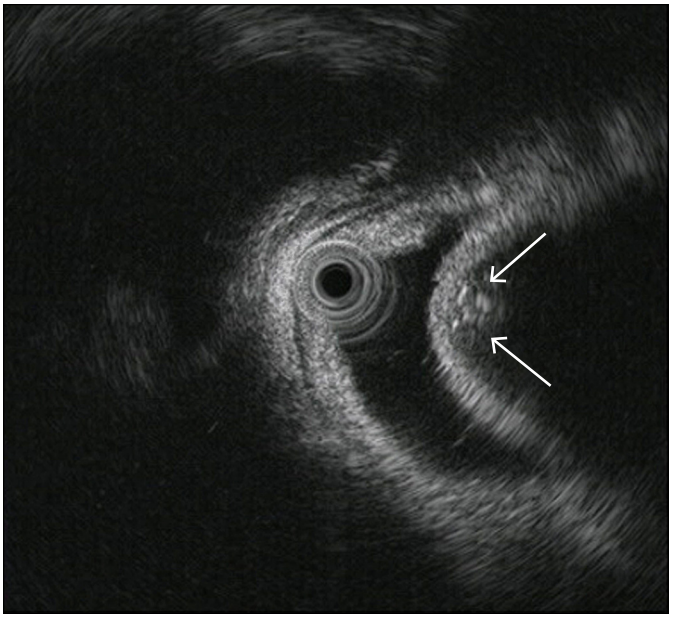

Figure 2. Endoscopic ultrasound revealing granular calcification in the tumor (arrows).

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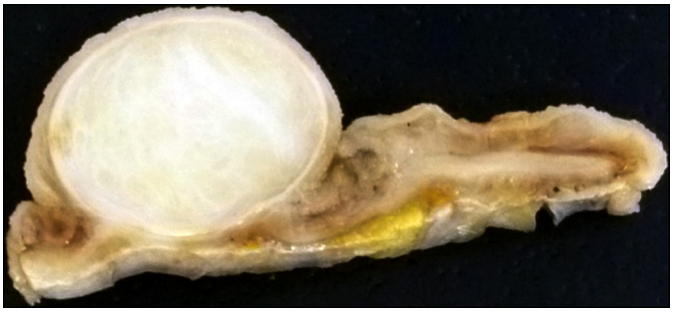

Figure 3. Cut surface of the surgical specimen showing an off-white submucosal tumor.

The tumor was removed with ileocecal resection. The resected tumor was elastic and well-circumscribed, and its cut surface was off-white in color (Figure 3). Histologically, it consisted a combination of abundant hyalinized collagen and sparse spindle cells (Figure 4). Scattered psammoma body-like calcified granules were seen in the tumor. These histopathological features were consistent with reported CFT.[1-4] The patient's postoperative course was uneventful, and no recurrent tumors have been reported.

CFT is a rare benign mesenchymal neoplasm, which arises in various organs and tissues including the GI tract.[1-3] Most intestinal tumors are detected incidentally during abdominal surgical procedures for disorders other than CFT.[2-4] Despite their entirely benign biological nature, surgical removal is recommended for intestinal CFTs because they may cause critical GI complications, such as ileus and intussusception.[2-4] If possible, endoscopic resection may be of enormous benefit for patients.[2] As this case shows, EUS provides important information to make the correct preoperative diagnosis of CFT. Distinguishing CFT from calcified GIST is crucial in the diagnosis of CFT, although the calcifying patterns of GIST (patchy or marginal) are considerably different from that of CFT (granular).[5]

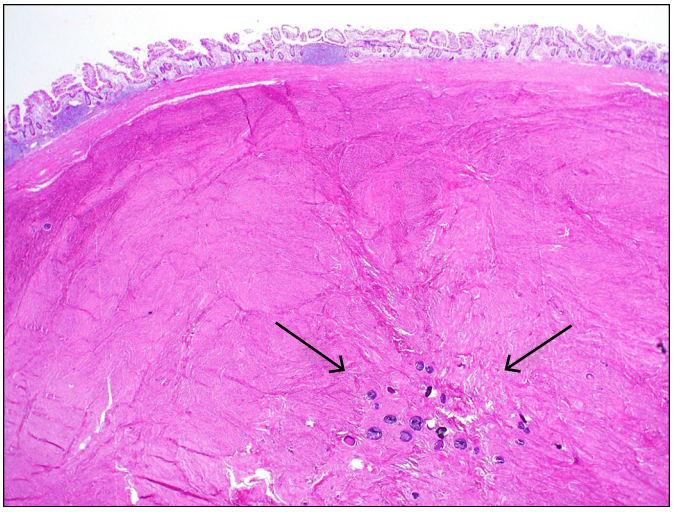

Figure 4. Microscopic slide (hematoxylin and eosin) showing that the tumor consisted mainly of abundant hyalinized collagen and contains calcified granules (arrows).

DISCLOSURES

Author contributions: All authors contributed equally to the writing and editing of this manuscript. Y. Ikura is the article guarantor.

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Informed consent was obtained for this case report.

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