Solitary Peutz-Jeghers hamartomatous polyp in the distal jejunum treated with endoscopic mucosal resection: A case report

Pólipo solitario de Peutz-Jeghers tipo hamartomatoso en el yeyuno distal tratado con resección mucosa endoscópica

We represented a report of easily overlooked solitary Peutz-Jeghers hamartomatous polyp at distal jejunum treated by single-balloon enteroscopy (SBE). A 24-year-old man was referred to our hospital with the complaints of intermittent diarrhea and abdominal pain for 6 years. Physical examination was unremarkable. Laboratory examinations revealed negative occult blood in the stools and normal blood examinations. Computed tomography enterography (CTE) of small intestines showed an intraluminal obviously enhanced nodule in the third group of small intestines (Fig. 1A). A polyp is a major concern, but other occupied lesions could not be excluded. SBE (SIF-Q260, Olympus Inc., Japan) demonstrated a solitary semi-pedunculated polyp measured 1.7 cm × 1.3 cm × 1.2 cm with a lobulated surface at the ending part of the jejunum. Endoscopic mucosal resection was then performed to remove the polyp (Fig. 1B–E). The polyp was injected submucosally with a 1:250 000 solution of epinephrine in saline. Electrical resection was performed with a 35-mm snare (NOE342217-C, Endo-Flex GmbH, Germany) and an electrosurgical unit (VIO200D, ERBE, Germany), which was used with the ENDO CUT Q mode (Effect 3, Duration 2, Interval 4, 770Vp) and the FORCED COAG mode (Effect 2, 1100Vp, 50W). Hemoclips were applied on the resected base. The total procedure time was 114 min. After the resection, the patient was instructed to fast for 5 days and treated with anti-acid therapy of lansoprazole 60 mg/day, anti-infection medicines of cefoperazone sodium 3.2 g/day and tazobactam sodium 0.8 g/day, hemostasis of aminocaproic acid 8 g/day and parenteral nutrition supplementation for prevention of postoperative complications. The protocol of parenteral nutrition supplementation was no different to other patients with resection by SBE. The patient discharged from the hospital 7 days after the polypectomy. Histology of the resected polyp revealed a hamartomatous polyp characterized by a dendritic distribution of smooth muscle hyperplasia extending from the muscularis mucosae toward the surface surrounding the glands (Fig. 1F and G). And the surgical margin revealed negative. The patient was examined with capsule endoscopy, of which the results showed that no other polyps were found. Because there is no family history of Peutz-Jeghers syndrome (PJS) or characteristic symptom of mucosal or skin pigmentation and no other polyps were identified in the gastrointestinal tract, the patient was diagnosed with a solitary Peutz-Jeghers-type hamartomatous polyp. No postoperative complications occurred within 3 months.

Solitary Peutz-Jeghers hamartomatous polyp is a rare disease in the absence of features of PJS. We were aware of 6 cases about solitary Peutz-Jeghers-type hamartomatous polyp in the jejunum reported in the English language medical literature. Those cases only reported the solitary hamartomatous Peutz-Jeghers polyp that was located in the jejunum within 50 cm from the ligament of Treitz. In our case with no acute abdominal symptoms, a solitary Peutz-Jeghers hamartomatous polyp located at distal jejunum was very difficult to detect. CTE was an effective noninvasive method for the detection of such polyp. There is a lack of data on the CTE features of solitary hamartomatous Peutz-Jeghers polyp in the small intestines. The CTE in our case showed a nodule with intense enhancement, and mesenteric vessels showed no abnormal enhancement and thickening.

The prognosis of the solitary Peutz-Jeghers hamartomatous polyp in the jejunum was usually rather good without malignant potential.[1–3] No recurrence of Peutz-Jeghers polyps after the resection have been reported in the patients with a solitary Peutz-Jeghers type hamartomatous polyp in the literature. However, there have been reports about the malignant transformation and dysplasia of the solitary Peutz-Jeghers polyp in the other parts of

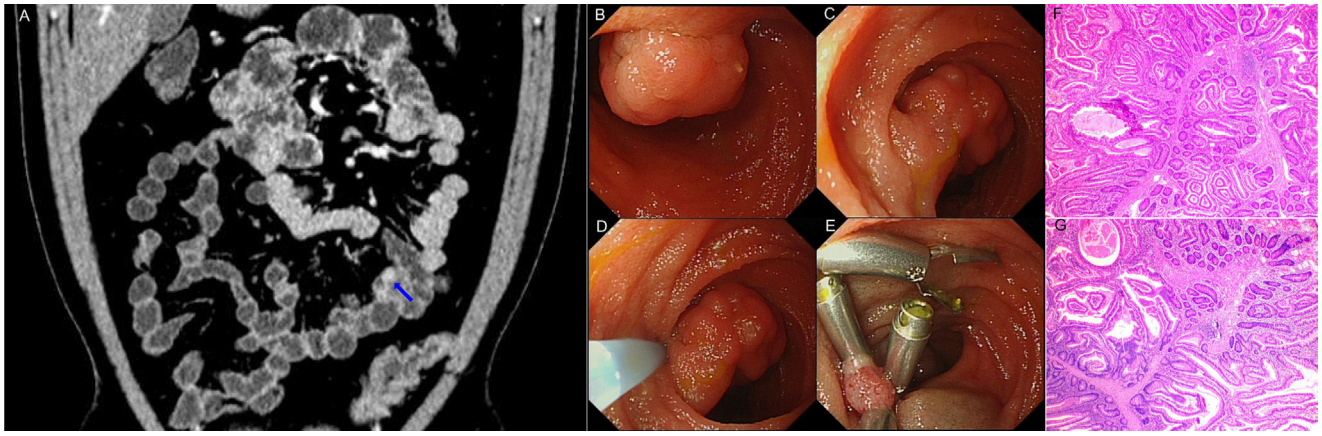

Figure 1 (A) Computed tomography enterography of the small intestines showed a distinctly enhanced nodular (arrow) in the distal jejunum. (B) The polyp showed an irregularly lobular surface. (C) The polyp is semi-pedunculated. (D) Single-balloon enteroscopic resection of the solitary Peutz-Jeghers hamartomatous polyp. (E) The surgical wound is clamped by titanium-clips. (F and G) Histopathologic specimens, demonstrating that smooth muscle bundles are covered with small intestinal mucosa (H&E with immunohistochemical staining).

the gastrointestinal tract.[4,5] Therefore, timely diagnosis and treatment is still necessary.

The treatments of solitary hamartomatous Peutz-Jeghers polyp include laparotomy, laparoscopic surgery and endoscopy.[1–3] Though the polyp in our case was at a deeper location, SBE is still a good choice for our patient who have no severe intussusception, bowel obstruction and bleeding to avoid the complications of adhesion, increased infection and the larger area wounds caused by laparotomy.

In summary, we provided the first report of solitary Peutz-Jeghers hamartomatous polyp at distal jejunum treated by SBE. Such solitary distal jejunal polyp without acute abdominal symptoms and features of PJS is easily overlooked, but necessary to be removed due to its potential of malignant transformation. CTE is an effective noninvasive method for screening such polyp to avoid misdiagnose. We need to emphasize the importance of the whole bowel examination even among the youth. SBE is a good therapy alternative to surgical treatment for this disease without intussusception, obstruction, volvulus or bleeding.

Informed consent

Written informed consent was obtained from the patient for publication of this case report and its accompanying images.

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Conflict of interest

None declared.

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