Synchronous Adenocarcinomas of the Ileum and Transverse Colon Detected by Capsule Endoscopy: Report of a Case

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Abstract
A 77-year-old woman was admitted to our hospital with anemia and anorexia. Neither gastrointestinal endoscopy nor computed tomography showed abnormal findings; however, a capsule endoscopy, performed to detect obscure gastrointestinal bleeding, revealed a tumor in the ileum. When we tried to take biopsies of the ileal tumor by push enteroscopy via the anus, we found another tumor in the transverse colon. On exploration, tumors were identified in the ileum and the transverse colon. Thus, we resected the ileum and transverse colon with regional lymph node dissection. Histologic sections from both the ileum and colon revealed moderately differentiated adenocarcinomas with no lymph node metastasis.

Key words Capsule endoscopy · Small bowel adenocarcinoma · Synchronous adenocarcinomas

Case Report
A 77-year-old woman was referred to our hospital for investigation of anemia and anorexia. Physical examination and laboratory data showed no abnormalities except for the anemia. Computed tomography (CT) and gastrointestinal endoscopy findings were unremarkable. Although M2A wireless video capsule (Given Imaging, Yoqneam, Israel) endoscopy is not widely known to the public, this patient had detailed information on it. Because of her firm request, CE was performed to detect obscure gastrointestinal bleeding, and it revealed a tumor in the ileum (Fig. 1). To confirm and take biopsies of the ileal tumor, we performed push enteroscopy from the anus, which revealed another tumor in the transverse colon; however, it was impossible to examine the proximal colon and ileum because of the resulting colonic stricture. Pathological examination of a biopsy specimen from the transverse colon tumor revealed moderately differentiated adenocarcinoma. Thus, we performed laparotomy, which revealed tumors in the ileum and transverse colon. The ileal tumor was located about 50 cm from the ileocecal valve. We performed resection of the ileum and transverse colon with regional lymph node dissection (Fig. 2). Histologic examination of sections from the ileum and colon confirmed moderately differentiated adenocarcinoma (Fig. 3). No lymph node metastasis was found in the ileum or colon.

Discussion
We reported an unusual case of synchronous adenocarcinomas of the ileum and transverse colon. Small bowel adenocarcinoma (SBA) accounts for 1%–2% of all gastrointestinal tumors; occurring in the duodenum (52%–55%), jejunum (18%–28%), and ileum (13%–18%).

Its clinical manifestations include abdominal pain,
obstruction, bleeding, and anemia; however, the diagnosis of SBA is usually delayed. The small intestine, especially that distal to the jejunum, is the most difficult segment of the gastrointestinal tract to examine by endoscopy and conventional radiologic methods because of its distinctive anatomy, length, and location. Maglinte et al. found an average delay in diagnosis of 8.2 months attributed to the failure of physicians to order appropriate tests, and a delay of 12 months attributed to the failure of radiologists to make a correct diagnosis. Therefore, most cases were discovered at an advanced stage at the time of laparotomy.

The most appropriate operative procedure, chemotherapy, and radiation remain controversial because of the paucity of prospective, randomized trials on the treatment of adenocarcinoma of the ileum. Most studies have concluded that only surgical resection can provide a better prognosis, and that completely or potentially curative resection and positive lymph nodes are of major prognostic significance in SBA. Therefore, it is important to detect SBA at a stage when curative resec-

Fig. 1. Capsule endoscopy showed a tumor in the ileum

Fig. 2A,B. Macroscopic findings of the resected specimens. A Ileum. B Transverse colon

Fig. 3A,B. Histological findings. A Moderately differentiated adenocarcinoma of the ileum (H&E, ×200). B Moderately differentiated adenocarcinoma of the colon (H&E, ×200)