



Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

A case of primary adenocarcinoma of the third portion of the duodenum resected by laparoscopic and endoscopic cooperating surgery



Ichiro Tamaki*, Kazutaka Obama, Koichi Matsuo, Kazuhiro Kami, Yusuke Uemoto, Teruyuki Sato, Tetsuo Ito, Nobuyuki Tamaki, Keiko Kubota, Hidenobu Inoue, Eiji Yamamoto, Taisuke Morimoto

Kyoto City Hospital, Department of Surgery, Mibuhigashitakadacho 1-2, Nakagyo Ward, Kyoto City, Kyoto Pref., Japan

ARTICLE INFO

Article history:

Received 16 February 2015

Accepted 18 February 2015

Available online 19 February 2015

Keywords:

Duodenal adenocarcinoma

Laparoscopic and endoscopic cooperating surgery

Duodenum

ABSTRACT

INTRODUCTION: We report a case of primary adenocarcinoma in the third portion of the duodenum (D3) curatively resected by laparoscopic and endoscopic cooperating surgery (LECS).

PRESENTATION OF CASE: A 65-year-old woman had a routine visit to our hospital for a follow-up of rectal cancer resected curatively 2 years ago. A routine screening gastroduodenal endoscopy revealed an elevated lesion of 20 mm in diameter in the D3. The preoperative diagnosis was adenoma with high-grade dysplasia; however, suspicion about potential adenocarcinoma was undeniable. Curative resection was performed by LECS. Pathological examination revealed intramucosal adenocarcinoma arising from normal duodenal mucosa. The tumor was stage I (T1/N0/M0) in terms of the tumor, nodes, metastasis (TNM) classification. LECS for duodenal tumor has seldom been reported previously, and this is the first report of LECS for primary adenocarcinoma in the D3. The transverse mesocolon was removed from the head of pancreas to expose the duodenum, and the accessory right colic vein was cut; this was followed by the Kocher maneuver for mobilization of the lesion site.

DISCUSSION: LECS enabled en bloc resection with adequate surgical margins and secure intra-abdominal suturing. Thorough mobilization of the mesocolon and pancreas head is essential for this procedure because it facilitates correct resection and suturing.

CONCLUSION: LECS is a feasible treatment option for duodenal neoplasms, including intramucosal adenocarcinoma, even though it exists in the D3.

© 2015 The Authors. Published by Elsevier Ltd. on behalf of Surgical Associates Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Except for carcinoma of the ampulla of Vater, primary duodenal adenocarcinomas are rare and account for only 0.3% of carcinomas of the digestive tract [1]. In recent years, the increased use of endoscopies has led to an increased identification of duodenal tumors [2]; however, a neoplasm in the third or fourth portion of the duodenum is an extremely rare entity and is sometimes difficult to treat [3]. Endoscopic treatment is generally appropriate for dysplastic polyps or intramucosal adenocarcinomas, although some cases may be difficult to resect endoscopically because of the thinness of the duodenal wall and the narrow working space [4]. We report a case of primary adenocarcinoma of the third portion of the duodenum (D3), resected curatively using the laparoscopic and endoscopic cooperating surgery (LECS) technique.

2. Report of a case

A 65-year-old woman had a routine visit to our hospital for a follow-up of the rectal cancer that was resected by laparoscopic surgery 2 years ago. The rectal cancer was stage I (T1/N0/M0) in terms of the tumor, nodes, metastasis (TNM) classification of the International Union Against Cancer (UICC) and we had found no sign of recurrence during the periodical surveillance after surgery. She had been in good health for the past 2 years. A gastroduodenal endoscopy as routine screening revealed an elevated lesion that was 20 mm in diameter in the D3 (see Fig. 1A); this was shown to be located on the lateral side of the tract by hypotonic duodenography (see Fig. 2). Endoscopic narrow-band imaging showed rough micro surface pattern (see Fig. 1B). Furthermore, chromoendoscopy revealed that the tumor was spreading laterally (see Fig. 1C). It was diagnosed as adenoma with high-grade dysplasia by biopsy. No local lymph node swelling or distinct metastasis was detected by contrast-enhanced computed tomography. All laboratory data were normal, including carcinoembryonic antigen (CEA) and cancer

* Corresponding author. Tel.: +81 75 311 5311; fax: +81 75 321 6025.
E-mail address: itamakiitamaki@gmail.com (I. Tamaki).

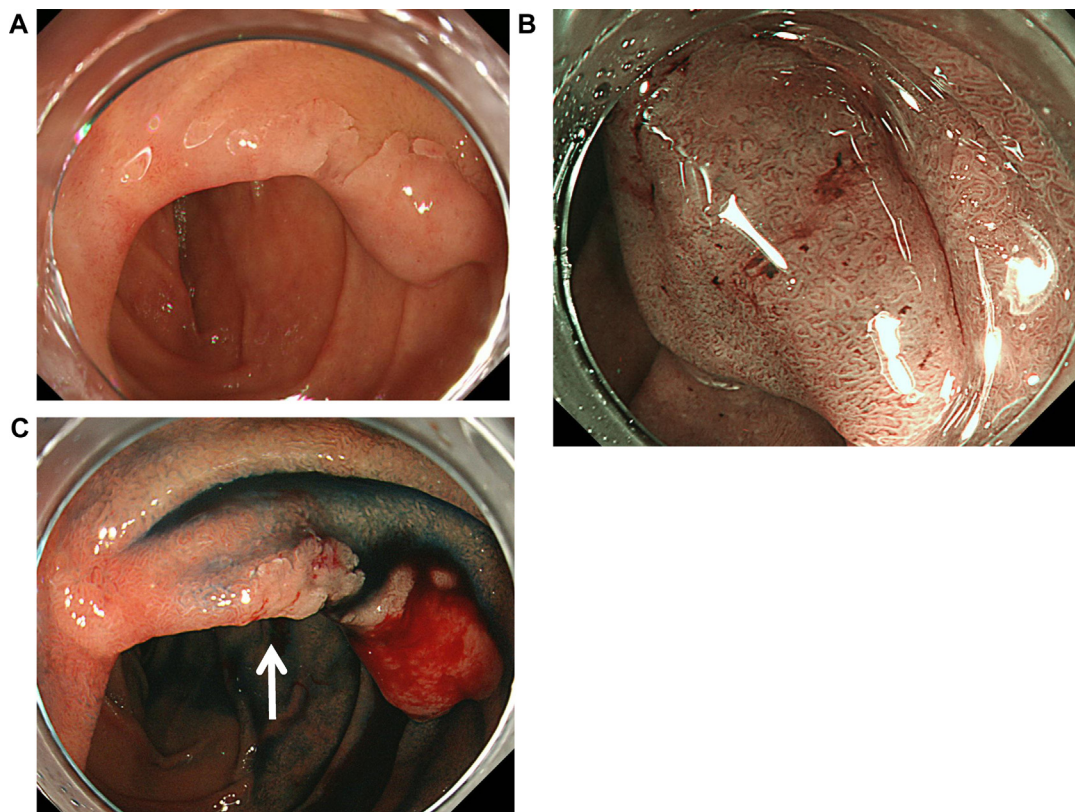


Fig. 1. Gastroduodenoscopy.

(A) Gastroduodenoscopy in white-light. A 20 mm sessile tumor in the third portion of the duodenum was shown.

(B) Endoscopic narrow-band imaging showed a rough micro surface pattern.

(C) Chromoendoscopy revealed that the tumor was spreading laterally (arrow).

antigen 19-9 (CA19-9). We first considered endoscopic submucosal dissection (ESD) for the treatment of this duodenal tumor to achieve an *en bloc* resection with negative surgical margin. However, due to a measurable risk of perforation, we decided to perform a curative resection using LECS after obtaining informed consent.

After the induction of general anesthesia, the patient was kept supine with the lower limbs spread laterally apart with a levitator. A 12 mm trocar was inserted through the umbilicus using an open technique, and pneumoperitoneum was established with carbon dioxide at a 10 mmHg abdominal pressure. No intra-abdominal adhesions were found. Two 5 mm trocars were placed into the left lateral upper quadrant, and one 5 mm trocar and one 12 mm tro-

car were then placed into the right upper quadrant (see Fig. 3). The greater omentum was dissected using ultrasonic laparoscopic coagulation shears (LCS) (SonoSurg®, Olympus, Tokyo, Japan). The hepatocolic ligament was dissected for the mobilization of the right colic flexure. The accessory right colic vein was then cut with a vessel clip to allow enough mobilization of the mesocolon from the head of pancreas to isolate the anterior wall of the D3. The Kocher maneuver was performed and the duodenum together with the head of pancreas was mobilized from the retroperitoneum to lift the area of the lesion. The endoscope was inserted through the oropharynx into the stomach with insufflation of carbon dioxide. The upper jejunum was clamped beforehand with silicon tape, preventing the flow of carbon dioxide gas to the lower jejunum. The tumor was confirmed in the D3 and marked endoscopically. Additional mobilization of the duodenum was performed laparoscopically. First, an ESD procedure was performed as much tissue removed as possible by the Dualknife® (Olympus, Tokyo, Japan) to minimize the time exposing the tumor intra-abdominally with safety surgical margin. After that, a whole layer excision was performed for an *en bloc* resection of the disease. A full-thickness excision approximately two-thirds circumference around the tumor was performed endoscopically and the tumor was inverted into the abdominal cavity. The final part was dissected by LCS using laparoscopic vision, and an adequate resection margin was acquired (see Fig. 4). The specimen was carefully placed in the retrieval bag to avoid the risk of tumor cell dissemination, and then removed through the 12 mm trocar. The post-excisional defect in the duodenal anterior wall was closed with a continuous full-thickness suture laparoscopically. The endoscope was inserted into the duodenum again to confirm the airtightness and the patency of the suture site. Blood loss was 6 ml. The operation time was 322 min, including preparing the

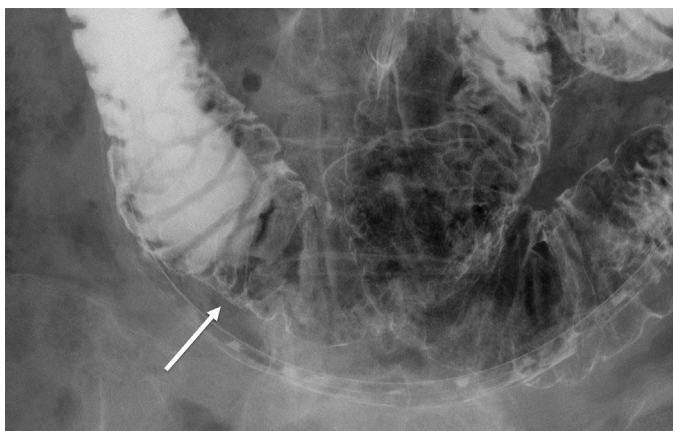


Fig. 2. Hypotonic duodenography showed an elevated lesion on the lateral side of the third portion of the duodenum.

Download English Version:

<https://daneshyari.com/en/article/4289076>

Download Persian Version:

<https://daneshyari.com/article/4289076>

[Daneshyari.com](https://daneshyari.com)