

Piotr Woźnicki¹, Małgorzata Malinowska¹, Marek Mądrecki², Tomasz Olesiński¹

¹Maria Skłodowska-Curie Memorial Cancer Centre and Institute of Oncology, Warsaw, Poland

²Provincial Hospital Complex, Płock, Poland

Long-term survival after surgical resection of locoregional gastric adenocarcinoma recurrence — a case report

Address for correspondence:

Dr n. med. Tomasz Olesiński
Klinika Gastroenterologii Onkologicznej
Centrum Onkologii — Instytut
im. Marii Skłodowskiej-Curie
ul. Roentgena 5, 02–781 Warszawa
e-mail: tolesinski@coi.pl

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ABSTRACT

Introduction. Recurrence is the leading cause of death of gastric cancer patients after curative resection. This report describes a 44-year-old woman with gastric adenocarcinoma and surgically resected locoregional recurrence, who has survived for more than 13 years after diagnosis.

Case report. A 33-year-old woman was admitted to the Gastroenterology Clinic with an episode of epigastric pain and minor weight loss. Two years earlier she had been diagnosed with gastric adenocarcinoma G2 of the antrum, pT2N1M0 (IIA) stage. She had undergone total gastrectomy with D2 lymphadenectomy and Roux-en-Y anastomosis followed by postoperative chemotherapy. Further diagnostic investigation after two years revealed the presence of metastatic cancer in the gastric bed. An explorative laparotomy was performed, and the surgeons successfully excised the enlarged lymph node. Post-operative pathologic examination proved gastric cancer metastasis. Since April 2007 the patient has stayed recurrence-free, and there have been no signs of recurrence on either US or CT scan, as of April 2018. This patient represents a rare case of long-term survival of recurrent gastric adenocarcinoma successfully treated with surgery despite particularly poor prognosis.

Conclusions. Surgery for gastric cancer recurrence is a valuable treatment in chosen patients, provided it is performed by a team of specialised surgeons.

Key words: gastric carcinoma, locoregional recurrence, surgical resection

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Introduction

Gastric cancer is the fifth most common cancer worldwide and the third leading cause of cancer-related deaths [1]. Gastric adenocarcinoma comprises 95% of malignant tumours of the stomach. While its incidence is gradually decreasing, the prognosis for the patients after curative gastrectomy is still poor. Recurrent tumour develops in most cases and often makes gastric cancer incurable [2–4]. Recurrences after curative resection for gastric carcinoma have been categorised as locoregional recurrence, peritoneal recurrence, and distant (including haematogenous) metastasis [5]. Although there is no clear consensus on the treatment of choice for recur-

rent gastric cancer, there have been a few reports on the relative effectiveness of surgical treatment in selected patients [6]. Here, we present a rare case of long-term survival (over 11 years after secondary resection of locoregional recurrence) of gastric adenocarcinoma.

Case report

A 33-year-old woman reported to the Oncology Centre with an episode of abdominal pain and minor weight loss. On examination she was in good overall condition, without lymphadenopathy, and the abdomen was tender and painless, with no abnormal masses. Ultrasound re-

vealed a tumour in the gastric bed. Fine-needle biopsy confirmed the presence of metastatic adenocarcinoma in a lymph node located around the pancreatic head.

The patient had a relevant medical history. Two years earlier, in 2004, she had undergone a total gastrectomy due to gastric cancer. Back then, she had presented with similar symptoms of unabating epigastric pain. Endoscopic findings had revealed an exophytic mass with central ulceration spreading over the lesser curvature and the anterior gastric wall, and the diagnosis of gastric adenocarcinoma G2, mixed type by Lauren classification, had been confirmed on histopathologic examination. On November 11, 2004, a total gastrectomy with D2 lymphadenectomy had been performed (R0 resection), with Roux-en-Y reconstruction of the gastrointestinal tract continuity. Pathologic examination revealed that the tumour was pT2N1M0 stage (clinical stage IIA) with two positive out of 30 excised lymph nodes. The patient had then received postoperative chemotherapy in the form of four cycles of FAM regimen (Fluorouracil-Adriamycin-Mitomycin).

Having considered the available treatment options, the surgeons decided to perform an explorative laparotomy and the malignant lymph node was excised 28 months after the primary resection. She has not received perioperative chemotherapy. Both the serum carcinoembryonic antigen (CEA) and the carbohydrate antigen 19-9 (CA 19-9) levels were within the normal range immediately after the surgery and at follow-up. Post-operative examination of the excised lymph node proved gastric cancer metastasis (Fig. 1 A–C). Since April 2007 the patient has remained recurrence-free, and there have been no signs of recurrence on either US or CT scan, as of April 2018.

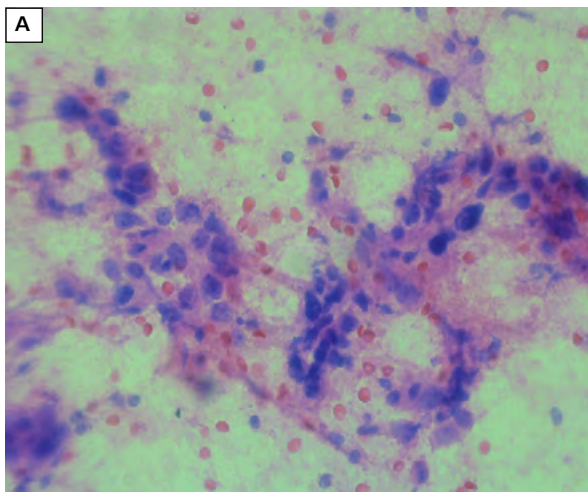


Figure 1A. Hematoxylin and eosin stain (H&E). Cytology. Lymph node metastasis

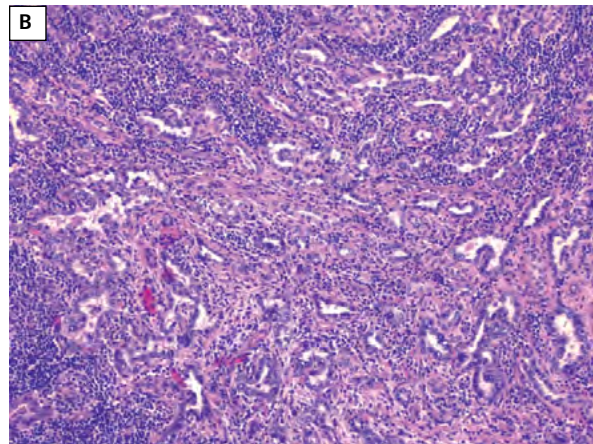


Figure 1B. Hematoxylin and eosin stain (H&E). Glandular structures of gastric cancer in the metastatic lymph node

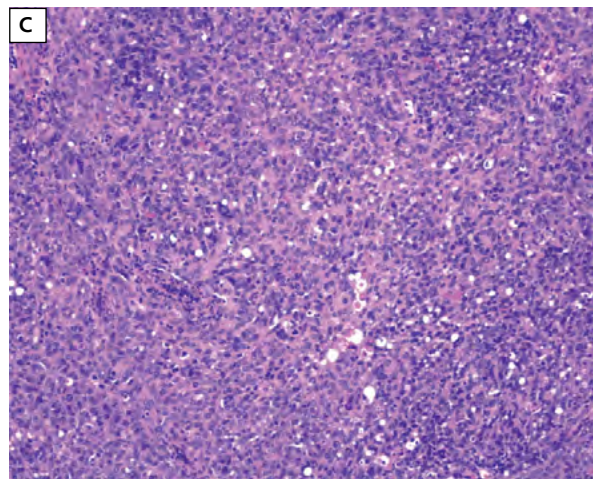


Figure 1C. Hematoxylin and eosin stain (H&E). Solid nests of gastric cancer in the metastatic lymph node

Discussion

Despite the improvements in diagnosis and surgical techniques, the prognosis and survival of gastric adenocarcinoma patients are significantly dependent on the stage of disease at the time of diagnosis. According to the American Joint Committee on Cancer (AJCC) survival data, for a cancer staged as in our case, treated with surgery and perioperative therapy, three-year and five-year survival are, respectively, 54.8% and 46.3% [1]. One major problem is that no effective therapy for recurring gastric cancer exists at present. Numerous studies try to evaluate the patterns and pre-operative predictive factors of recurrence. It seems that valid strategies to prevent postsurgical recurrence are curative resection, standard lymphadenectomy, and perioperative chemotherapy. Current ESMO recommendations include perioperative chemotherapy for patients with \geq stage IB gastric cancer and adjuvant

therapy only if no chemotherapy was administered preoperatively [7]. The mean time to recurrence for locoregional recurrence was reported to be 26.4–28.1 months [8, 9]. In the presented case, it was 27 months after the primary surgery when the recurrence was detected.

While locoregional recurrence accounts for around 25% of all recurrences, the most common recurrence pattern is peritoneal recurrence (around 40% of cases). Haematogenous metastasis is the third most common pattern, with liver being a typical location [2]. Locoregional recurrent gastric cancer is commonly treated with chemotherapy only. Recurrences are rarely treatable with surgery and there are no proper indications for those patients. There are no predictive clinicopathological indicators for surgical resection, other than resectability [2, 8, 10]. However, when surgical resection is performed, the expected five-year survival rate was reported to be 20%, and the prognosis is even better if the resection was complete [2, 3, 8]. Our patient has experienced over 11 years recurrence-free.

Kong et al. found the two-year cumulative survival rates to be significantly better for resection of the recurrence plus chemotherapy than for chemotherapy only (23.8% vs. 1.2%, $p < 0.001$) [2]. Other studies also report generally longer survival time when surgery is performed along with chemotherapy [5, 6]. For any given patient, appropriateness of extensive resection should be assessed by a multidisciplinary assessment team. If the perioperative risk is low, surgery seems justified because no other therapy is effective enough. There are also numerous reports of long-term survival after surgery of recurrent gastric cancer with liver metastasis. Kiyasu described a case of over 18-year survival after gastric adenocarcinoma resection and subsequent liver metastases resection 30 months later [11]. Ambiru et al. reviewed the cases of six patients who survived longer than five years after curative excision of the stomach and liver [12].

Conclusions

Surgery for gastric cancer recurrence is a valuable treatment in chosen patients, provided it is performed

by a team of specialised surgeons. Considering the high mortality and ineffectiveness of other therapies for recurrent gastric cancer, standardised indications for surgery should be elaborated. Further studies assessing the validity and effectiveness of this method are also needed.

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