

Case Report

Lateral Pelvic Lymph Node Recurrence 5 Year after Endoscopic Mucosal Resection for Superficial Lower Rectal Cancer

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ABSTRACT

A 73-year-old woman underwent endoscopic mucosal resection for a 10-mm-diameter rectal polyp (Isp) within 5 cm of the anal verge in November 1995. Pathological examination showed that well-differentiated adenocarcinoma had invaded the submucosal layer with vascular invasion. Although secondary surgical treatment was recommended, the patient refused further treatment. Right-sided sciatica developed in December 2000, and metastasis to the right obturator lymph node was detected with computed tomography. Intrapelvic lymphadenectomy was performed in February 2001 and revealed no other metastatic lesions. Total mesorectal excision (TME) should be performed if another surgical procedure is to follow endoscopic mucosal resection. Because lateral pelvic lymph nodes are not dissected at TME, the procedure had no additional benefit for our patient. The secondary surgical treatment for early cancer in the lower rectum should be selected carefully. (Jikeikai Med J 2006 ; 53 : 163-6)

Key words : early rectal cancer, lateral pelvic lymph node, endoscopic mucosal resection

INTRODUCTION

We report a case of early lower rectal cancer in which recurrence was recognized in the right obturator lymph node 5 years after endoscopic mucosal resection (EMR). The sentinel lymph node in this case was likely the right obturator lymph node. This case is rare because recurrence was detected 5 years after EMR. Furthermore, the sentinel lymph node was not located in the mesorectum but was the right obturator lymph node, located in the lateral pelvis.

CASE REPORT

A 73-year-old woman underwent EMR for a 10-mm-diameter rectal polyp (Isp) 5 cm from the anal verge in November 1995 (Fig. 1). Pathologic examination showed that the well-differentiated adenocarcinoma had invaded the submucosal layer with vascular invasion, and a mucinous lake including the carcinoma was observed at its invasive front (Fig. 2). Although secondary surgical treatment¹ was recommended, the patient refused further treatment. Right-sided sciatica developed in December 2000, and metastasis to the right obturator lymph node was

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detected with computed tomography (Fig. 3). Intrapelvic lymphadenectomy was performed in February 2001 and revealed no other metastatic lesions. Histologic examination revealed that the mucinous carcinoma involved the right obturator lymph node. The pathological findings were similar to those of the invasive front of the primary rectal cancer (Fig. 4).

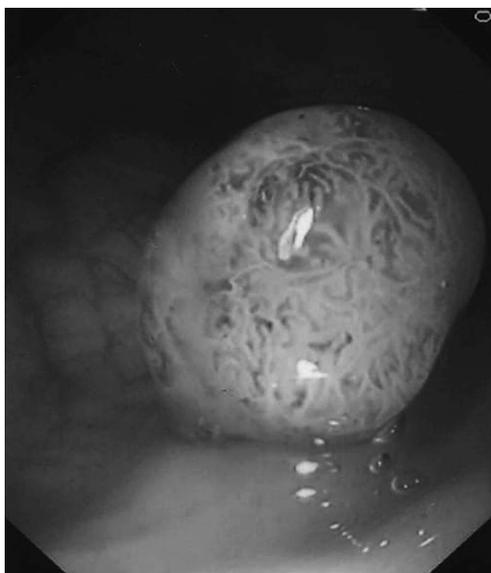


Fig. 1. Colonoscopic examination shows a 10-mm-diameter rectal polyp (Isp) within 5 cm of the anal verge.

After discharge, the patient received radiotherapy (45 Gy) as adjuvant treatment. In December 2001, an increase in the serum level of carcinoembryonic antigen was recognized, and metastases to multiple sites in the lungs were confirmed with chest X-ray films and computed tomography. The patient received systemic chemotherapy with irinotecan, but the treatment was ineffective, and she died in November 2002.

DISCUSSION

When vascular invasion is present in early, large cancer of the bowel, secondary surgical treatment is generally performed because of the risk of lymph node metastasis¹. However, surgical procedures are more difficult in the lower rectum than in other parts of the colorectum. The surgical stress of such procedures is also great. Total mesorectal excision (TME) is generally the treatment of first choice for rectal cancer in Europe and the United States, and lateral pelvic lymphadenectomy is rarely performed^{2,3}. On the other hand, lateral pelvic lymphadenectomy is commonly performed for advanced lower rectal cancer in Japan, and many reports have described the effects of radical dissection on advanced cancer of the lower

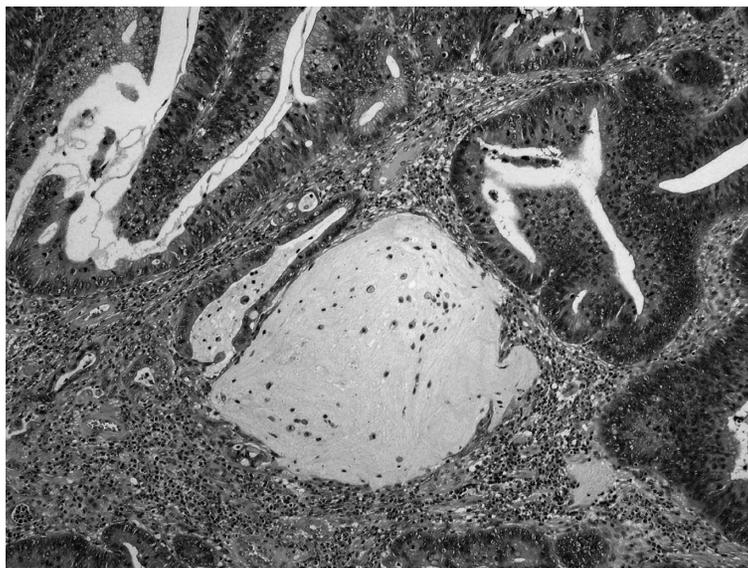


Fig. 2. Pathological examination of the resected specimen (hematoxylin and eosin, 100 \times) shows a well-differentiated adenocarcinoma that had invaded the submucosal layers with vascular invasion. A mucinous lake was observed at its invasive front.

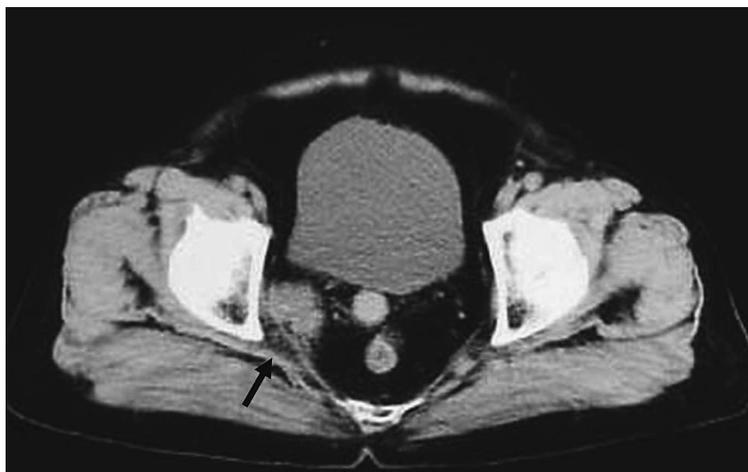


Fig. 3. Computed tomography shows the metastatic lesion in the right obturator lymph node (arrow).

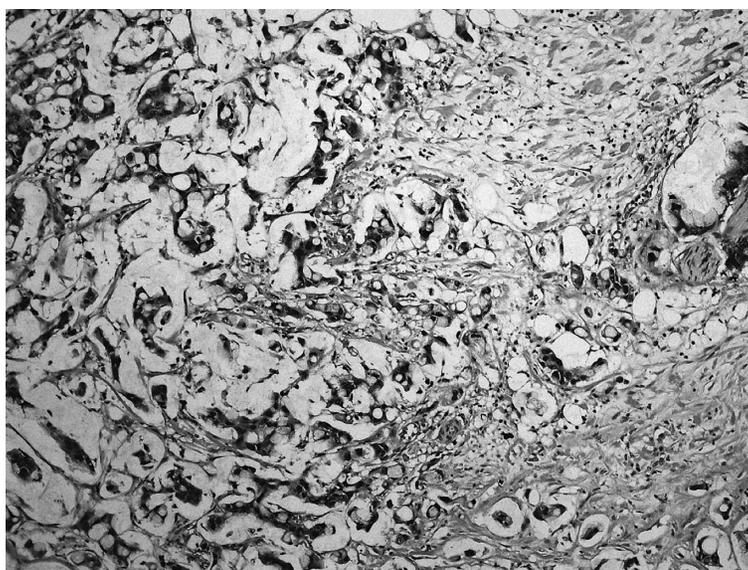


Fig. 4. Surgical specimen (hematoxylin and eosin, 100 \times) shows a mucinous carcinoma with pathological findings similar to those of the invasive front of the tumor resected with EMR.

rectum⁴. However, radical dissection is rarely indicated for early rectal cancer, and TME should be indicated, even in Japan. However no lateral pelvic lymph nodes are dissected during TME, and all metastatic lymph nodes located in lateral areas must remain after TME. Therefore, TME has no additional benefit for patients with metastasis to lateral lymph nodes. Our patient had early rectal cancer, and recurrence was recognized only in the right obturator lymph node. In other words, the sentinel lymph node was the right obturator lymph node. Therefore, TME would not have been advantageous if selected. The

secondary surgical treatment for early cancer of the lower rectum should be selected carefully.

With regard to sentinel lymph nodes for rectal cancer, evaluation of radiocolloid lymphatic mapping in 37 patients with rectal cancer⁵ showed sentinel lymph nodes only in the mesorectum and not in the lateral pelvis. Therefore, patients with sentinel lymph nodes in the lateral pelvic area, such as our patient, may be extremely rare.

In cases of gastric cancer, physiological lymph flow to the regional lymph nodes can be visualized in real time after injection of indocyanine green⁶.

However, rectal lymph flow cannot be observed directly because all regional lymph nodes and lymphatic vessels are retroperitoneal. Evaluation of sentinel lymph nodes is much more difficult for lower rectal cancer than for gastric cancer. Sentinel lymph node biopsy in rectal cancer is unlikely to enter routine clinical practice soon.

The methods most often used to detect lymph node metastasis are endoscopic ultrasonography, computed tomography, and magnetic resonance. Endoscopic ultrasonography is the most sensitive available method for detecting lymph node metastasis near the intestine⁷, but no preoperative examination can accurately detect lateral pelvic lymph node metastasis.

A study in patients with advanced cancer of the lower rectum⁸ has shown that lateral lymph node dissection is not necessary in terms of curability if preoperative radiotherapy has been performed. Our patient might have undergone radiation therapy immediately after EMR.

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