

Rectal metastasis of sigmoid colon cancer

TAKAYUKI YAMADA¹

¹Asunaro Clinic

January 30, 2022

Abstract

A 73-year-old man underwent a stage II sigmoid colon cancer resection. Careful monitoring was undertaken, and no evidence of metastasis or anastomotic recurrence was noted until 51 months later. Anal examination revealed a pink, firm perianal tumor histologically identified as a metastasis of the colon adenocarcinoma.

Introduction

Sigmoid colon cancer sporadically metastasizes to regional lymph nodes, liver, and lungs. However, intestinal metastasis of colon cancer rarely occurs. The diagnosis of rectal metastasis of sigmoid colon cancer was not initially suspected in this case. Still, it was indeed identified, despite 51 months of careful postoperative monitoring for surgical site recurrence and distant metastasis that failed to reveal this metastasis.

Case History/Examination

A 73-year-old man underwent sigmoidectomy with lymph node dissection for stage II sigmoid colon cancer 4 years ago. Afterward, he was carefully monitored using chest- and abdominal computed tomography (CT), serum tumor markers, and colonoscopies. No evidence of metastasis or anastomotic recurrence was observed until 4 years and 3 months postoperatively when he experienced anal bleeding during defecation, initially felt to be caused by internal hemorrhoids. Anal examination revealed a pink, firm perianal tumor (Figure A). On biopsy, the sample showed heterotypic columnar epithelium arranged in irregular duct-like, amalgamation duct-like, and comb-like configurations under stratified squamous epithelium, indicating that the tumor was a metastasis of the colonic adenocarcinoma (Figure B). The patient was oxygen-dependent due to pulmonary fibrosis and emphysema, and had a history of rheumatoid arthritis and variant angina, which contraindicated rectal amputation.

Differential diagnosis, investigations, and treatment

A positron emission tomography (PET) scan revealed an inoperable left inguinal lymph node metastasis. PET-CT did not detect any abnormal accumulation in his lungs, pancreas, or gallbladder. Upper gastrointestinal endoscopic examination was unremarkable. A presumptive diagnosis of rectal metastasis of sigmoid colon cancer was made.

Outcome and follow-up

Since the patient's performance status precluded surgical intervention, he received chemoradiotherapy for local control of the bleeding tumor. The bleeding has been well controlled and he is surviving with the disease.

Discussion

In general, postoperative detection of recurrent alimentary canal cancers is monitored using chest-abdominal-pelvic CTs, assessing for distant metastasis (lungs, liver, adrenal glands, bones, or spleen) or dissemination

(ascites, pleural effusion, paraaortic or regional lymphadenopathy) yearly for 4 years. Unfortunately, conventional CT cannot detect lymph node metastasis <10 mm in size, and no objective radiologic criteria for lymph node metastasis exist.¹ Additionally, CT scans find it difficult to detect pinpoint nodular, circum-intestinal involvement. Furthermore, intestinal metastasis rarely occurs.² The exact mechanism of colorectal metastasis from primary colorectal cancer has not been fully elucidated. Intestinal metastases are derived from submucosal vessels and typically present as submucosal tumors because the cancers are mainly located in the submucosa and the muscularis propria. Direct incisional biopsy was able to be performed in this case; if manual incisional biopsy had been unfeasible because of tumor location, endoscopic ultrasound fine-needle aspiration or boring biopsy would have been chosen.³ These procedures require a specialized institution. Conventional follow-up colonoscopy examinations have difficulty detecting this type of recurrence. Anastomotic recurrence occurs occasionally but this was not the case for this patient. Sigmoid colon cancer lymph node metastases arise from the paracolic lymph nodes to the inferior mesenteric lymph nodes and paraaortic lymph nodes, rarely metastasizing to the pararectal lymph nodes. This suggests that this was a blood-borne metastasis.

Given the limitations of his performance status, he received only chemoradiotherapy for local control of the bleeding tumor. Therefore, this case was a presumptive diagnosis of rectal metastasis of sigmoid colon cancer.

Rectal metastasis of colon cancer rarely occurs. Therefore, this report can help clinicians to identify this rare metastasis.

Author Contributions:

Takayuki Yamada: first author and diagnostician.

References

1. Hong EK, Landolfi F, Castagnoli F, et al. CT for lymph node staging of Colon cancer: not only size but also location and number of lymph node count. *Abdom Radiol (NY)*. 2021 September;46(9):4096-4105. doi:10.1007/s00261-021-03057-0.
2. Kojima S, Sakamoto T, Nagai Y, Honda M, Ogawa F. Metachronous rectal metastasis from primary transverse colon cancer: a case report. *Surg Case Rep*. 2018 August 9;4(1):90. doi:10.1186/s40792-018-0498-0.
3. Yamane H, Ishida M, Banzai S, et al. Advanced gastric cancer with features of a submucosal tumor diagnosed by endoscopic ultrasound-guided fine needle aspiration and boring biopsy preoperatively: A case report and literature review. *Int J Surg Case Rep*. 2019 February 8;55:223-226. doi:10.1016/j.ijscr.2019.01.044.

Figure legends

Figure A: An anal examination revealing a pink, firm perianal tumor.

Figure B: The biopsy sample showing heterotypic columnar epithelium arranged in irregular duct-like configurations, amalgamation duct-like configurations, and comb-like configurations under stratified squamous epithelium.

