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Metachronous mediastinal lymph node metastasis from ascending colon cancer: A case report and literature review

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ABSTRACT

INTRODUCTION: Metachronous mediastinal lymph node metastasis without pulmonary metastasis is extremely rare in colorectal cancer, which makes the clinical diagnosis difficult and treatment strategy unclear.

PRSENTATION OF CASE: A case was a 59-year-old man, who had undergone right hemicolectomy for ascending colon cancer 2 years and 8 months previously, presented with enlarged mediastinal lymph nodes. ^{18}F-fluorodeoxyglucose (FDG) positron emission tomography revealed FDG was accumulated only into the mediastinal lymph nodes. Serum carcinoembryonic antigen (CEA) level was within the normal range. Six months later, the size and FDG uptake of the mediastinal lymph nodes had increased. We assumed a possibility that the mediastinal lymph nodes were metastasized from ascending colon cancer and so performed thoracoscopic-assisted resection of the mediastinal lymph nodes. Histopathological analysis revealed the resected lymph nodes were filled with moderately differentiated adenocarcinoma and a diagnosis of mediastinal lymph nodes metastasis from previously-resected ascending colon cancer was made. The patient was postoperatively followed for more than 1 year and 8 months without any sign of recurrence.

DISCUSSION: Only 7 cases of metachronous mediastinal lymph node metastasis from colorectal cancer, including our case, have been reported in the English literature. It is difficult to clinically diagnose mediastinal lymph node metastasis.

CONCLUSION: We report a rare case of metachronous mediastinal lymph node metastasis from ascending colon cancer with literature review. If the mediastinal lymph nodes are enlarged after colorectal cancer resection, we need to make a treatment strategy as well as a diagnostic approach considering the possibility of mediastinal lymph node metastasis.

1. Introduction

The primary sites of metastasis from colorectal cancer are the liver, lung, bone, and brain [1]. Mediastinal lymph node metastasis from colorectal cancer is extremely rare, which makes the clinical diagnosis difficult and treatment strategy unclear. We report a rare case of metachronous mediastinal lymph node metastasis from ascending colon cancer. We also summarize our case and 6 cases previously reported in the English literature. This work has been reported in line with the SCARE criteria [2].

2. Presentation of case

A 56-year-old man underwent right hemicolectomy for ascending colon cancer. Histopathological analysis revealed that the primary colon cancer was a moderately differentiated adenocarcinoma with lymphovascular invasion: pT3, pN1, pM0, ly1, v1, and pStage IIIB. The patient was followed without adjuvant chemotherapy. Two years and 8 months later, a follow-up computed tomography (CT) scan showed bulky, swollen mediastinal lymph nodes with no evidence of a pulmonary mass. The serum carcinoembryonic antigen (CEA) level (1.1 ng/ml) was within the normal range. ^{18}F-fluorodeoxyglucose (FDG) positron emission tomography showed that FDG was accumulated only into the mediastinal lymph nodes. (Fig. 1a). The size and maximum standardized uptake value (SUVmax) of the mediastinal lymph nodes were 27 mm and 8.41, respectively. At this stage, we could not determine whether the mediastinal lymph nodes were malignant or not. Therefore, we decided to continue the follow-up every 3 months. Three months later, CT scan showed the size of the medi-

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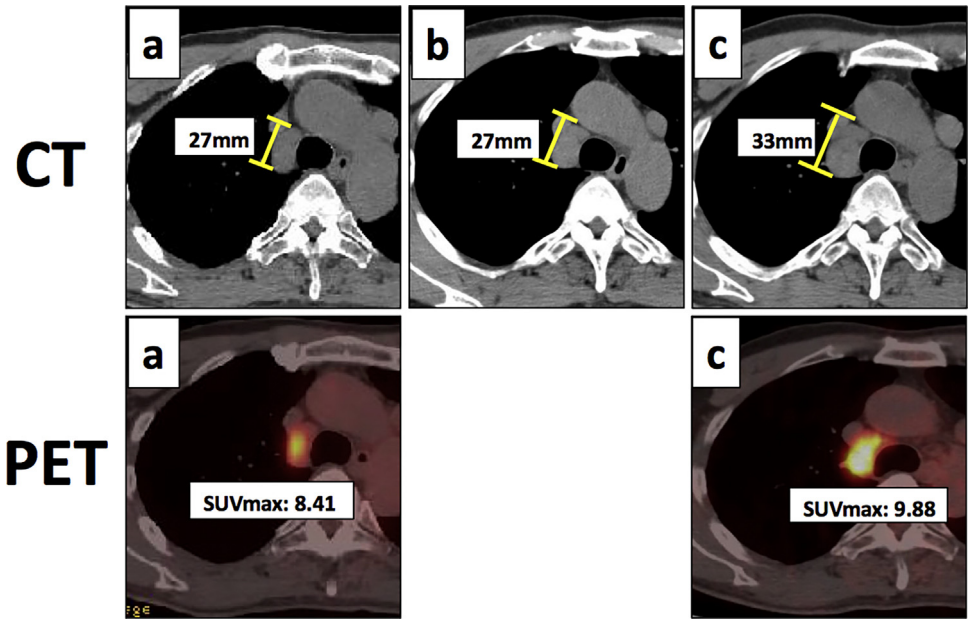

Fig. 1. ^{18}F-fluorodeoxyglucose positron emission tomography (FDG-PET) and computed tomography (CT).
(a) First detected mediastinal lymph nodes. (b) 3 months later, CT scan showed that the size of mediastinal lymph nodes was almost unchanged. (c) 6 months later, the size and the maximum standardized uptake value (SUVmax) of mediastinal lymph nodes had increased.

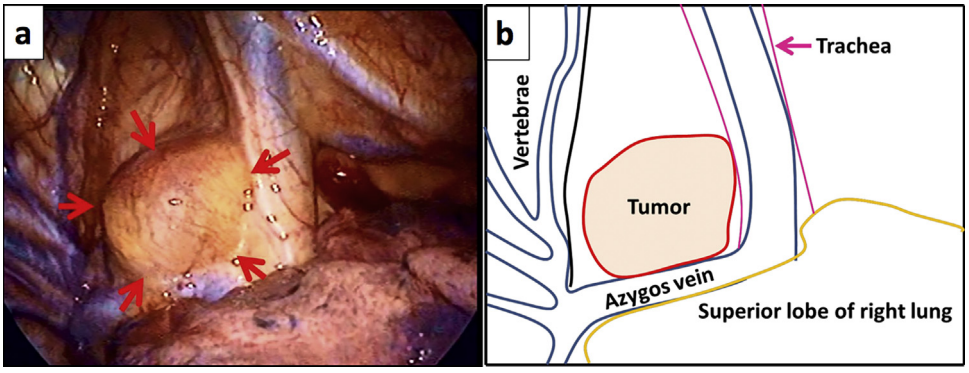

Fig. 2. Intraoperative finding. (a) Thoracoscopic image in the left lateral decubitus position. Tumor(*arrows*). (b) Schema of (a).

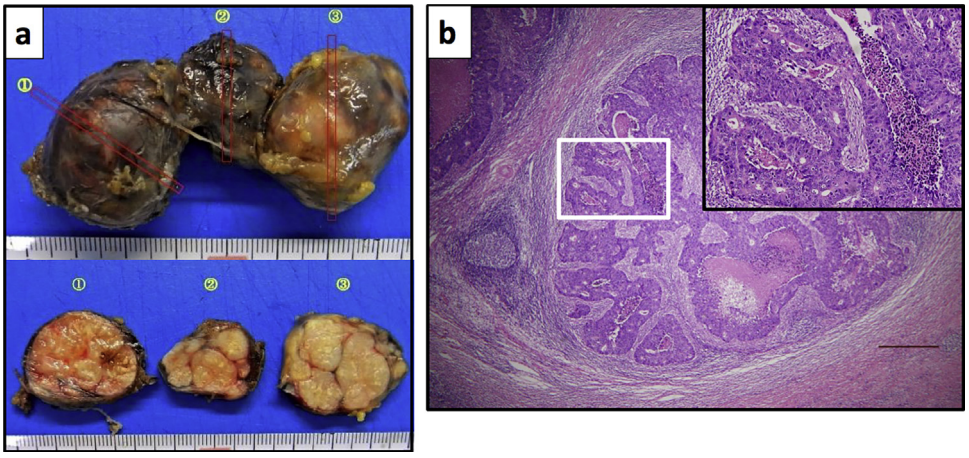

Fig. 3. Histopathological findings of resected specimen.
(a) Resected specimen. (b) Lymph nodes were filled with moderately differentiated adenocarcinoma in cribriform pattern. H&E, x40, scale bar: 500 μm. An insert shows a higher magnification of the boxed area.