

Symptomatic Colonic Metastasis in a Patient with Non-Small Cell Lung Carcinoma

Aastha Bharwad, M.D., Chelsea Wuthnow, M.D., J.D., William Salyers, Jr., M.D., MPH

University of Kansas School of Medicine-Wichita, Wichita, KS
Department of Internal Medicine

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INTRODUCTION

Lung cancer is the leading cause of death related to cancer in the United States.¹ Of the various types of lung cancer, the majority are non-small cell lung cancer (NSCLC). A significant number of patients that present with NSCLC have distant metastases at the time of diagnosis, however, only a small percentage have abdominal metastasis.^{1,2}

Abdominal metastases are most often squamous cell carcinoma and can be found in the liver, adrenal glands, pancreas, spleen, kidneys, gastrointestinal (GI) tract, peritoneum, or abdominal lymph nodes.^{1,3} Metastases to the GI tract are rare with a prevalence rate of 0.5 - 14% and are often asymptomatic but can present with abdominal pain, intestinal obstruction, bloody stool, diarrhea, or intestinal perforation.^{4,5} Colonic metastasis often is not diagnosed during life, with up to one-third diagnosed during an autopsy.² We present a female with a history of Stage IV NSCLC diagnosed with sigmoid colon metastases after complaints of bright red blood per rectum.

CASE REPORT

A 63-year-old female with a past medical history of bilateral deep vein thrombosis, ischemic stroke with patent foramen ovale, and stage IV non-small cell lung carcinoma, presented with melena and bright red blood per rectum. She was diagnosed with NSCLC of the adenocarcinomatous type with metastasis to the brain and abdominal wall two years prior and had completed treatment of carboplatin, pemetrexed, and pembrolizumab, along with radiation to the brain, abdomen, and lung.

Upon admission, computed tomography (CT) showed an infiltrative lesion obstructing the right upper lobe bronchus consistent with the patient's NSCLC history, as well as increased mesenteric and retroperitoneal lymphadenopathy. A previous pancreatic head mass also was increased. A new enhancing 1.9 cm lesion in segment 5 of the right hepatic lobe was found along with a peripherally enhancing mass in the mid-sigmoid colon extending into the mesocolon (Figure 1). Colonoscopy revealed a 50% circumferential bleeding sigmoid mass 30 cm from the anal verge. The patient underwent sigmoid resection with palliative intent showing a 4.5 cm ulcerated mass with carcinoma extending the entire thickness of the bowel with extensive tumor necrosis and lymphovascular space involvement. Pathology revealed moderately to poorly differentiated adenocarcinoma with 30 of 32 lymph nodes positive for metastasis. Immunohistochemical staining showed positive for TTF-1, Napsin-a, and CK7, but negative for CK20 and CDX2 consistent with lung adenocarcinoma. Her post-operative course was uneventful, and the patient opted for hospice on discharge.

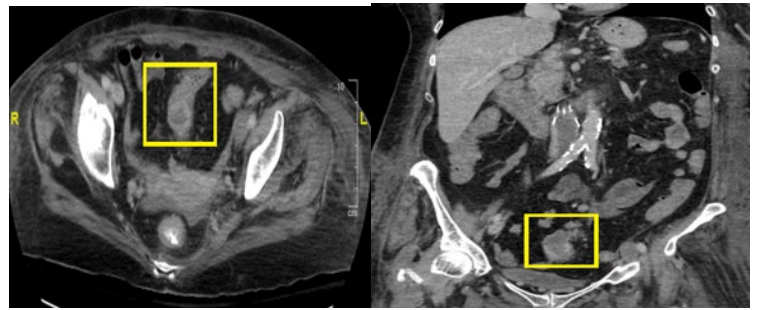


Figure 1. The highlighted image shows peripherally enhancing mass in the mid sigmoid colon extending into the mesocolon.

DISCUSSION

Lung cancer is the leading cause of death worldwide with most patients presenting with distant metastasis at the time of diagnosis. The common site of metastasis are the lymph nodes, liver, bones, adrenal glands, and the brain.¹ While metastasis to the GI tract is rare, with majority of them being in the small bowel, only a few cases of colonic metastasis have been reported.

Most GI tract metastases are asymptomatic, thus diagnosed post-mortem.² Symptoms when present may include weight loss, abdominal pain, constipation, diarrhea, and bloody stool. In our case, the patient was diagnosed with colonic metastasis after she presented with melena. GI endoscopy with the histopathologic diagnosis is the golden standard for confirming GI tract metastasis from the lungs.⁶ Symptomatic GI metastasis should be treated by surgical intervention or medical treatment. With appropriate treatment, these patients may have longer survival with improved quality of life.⁵ Therefore, although there may not be high suspicion of colonic metastasis in NSCLC patients, it is important to screen for them, especially if symptomatic.

REFERENCES

- Pararas N, Kirkilessis G, Pikoulis A, Syrigos K, Pikoulis E. A rare case of a metastatic lung squamous cell carcinoma to the large bowel and the liver. *Cureus* 2021; 13(3):e13867. PMID: 33738176.
- Thomas K, Mirza Z, Coppola D, Friedman M. Colonic metastasis from primary lung adenocarcinoma: A case report and review of the literature. *AME Med J* 2017; 2(2).
- Tamura T, Kurishima K, Nakazawa K, et al. Specific organ metastases and survival in metastatic non-small-cell lung cancer. *Mol Clin Oncol* 2015; 3(1):217-221. PMID: 25469298.
- Janež J. Acute intestinal obstruction due to metastatic lung cancer - Case report. *J Surg Case Rep* 2017; 2017(2):rjx031. PMID: 28458837.
- Huang YM, Hsieh TY, Chen JR, et al. Gastric and colonic metastases from primary lung adenocarcinoma: A case report and review of the literature. *Oncol Lett* 2012; 4(3):517-520. PMID: 22970049.
- Antler AS, Ough Y, Pitchumoni CS, Davidian M, Thelmo W. Gastrointestinal metastases from malignant tumors of the lung. *Cancer* 1982; 49(1):170-172. PMID:6274500.

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