A Rare Case of Primary Lung Adenocarcinoma With Biopsy-Proven Gastric Metastases

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INTRODUCTION

Gastrointestinal (GI) metastases from lung cancer are extremely rare, reported incidence being 0.3-1.7% from clinical studies and 4.6-14% in postmortem studies, reflecting missed diagnosis. Gastric cavity and colon are the rarest sites of involvement.

CASE DESCRIPTION

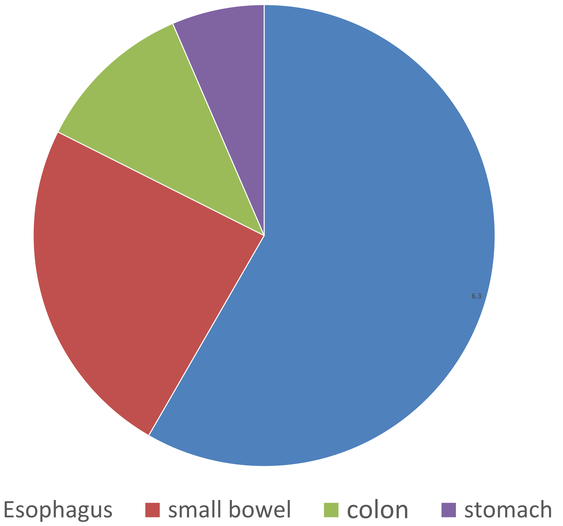
A 67-year-old male with a 120 pack-year smoking history presented with upper abdominal pain associated with dyspepsia and constipation, in the background of productive cough for several months.
CT scans revealed widespread micro-nodular opacities at bilateral lung bases, a 6 mm hepatic nodule, numerous lytic lesions in the pelvis and thoracic spine, an L1 vertebral mass and extensive brain and meningeal enhancement. Further workup included
biopsies of the L1 mass and an EGD was done and random gastric mucosal biopsies obtained,. These were all consistent with metastatic adenocarcinoma with IHC staining positive for Napsin A, TTF1, CK7, and CK19.
Foundation one testing revealed no actionable mutations.
He was diagnosed with Stage IVb lung adenocarcinoma and received 4 cycles of carboplatin, pemetrexed and pembrolizumab and radiation therapy to whole brain, followed by maintenance chemotherapy with pemetrexed and pembrolizumab. Unfortunately, surveillance PET scans revealed worsening tumor burden and currently he is undergoing palliative chemotherapy and radiation.

Discussion (contd.)

As novel treatments are discovered, and survival rates increase, the spectrum of pathology of lung cancer keeps evolving. Lung cancer commonly metastasizes to the bones, lymph nodes and brain; however, the gastrointestinal tract is increasingly being noted as a potential metastatic site.

Small vs large cell lung cancer are the most common subtypes of lung cancer associated with GI metastases as reported in literature. Esophagus and small bowel are most commonly involved. Very few cases of lung adenocarcinoma with stomach metastases have been reported. Diagnosis of the primary lesion can be tricky in cases where initial presentation includes GI complaints.

While most GI metastases present early as obstruction or perforation, gastric metastases can remain clinically silent for long durations due to the anatomy of the gastric wall and size of the gastric cavity, and hemorrhage in this location can be occult and more extensive. The metastatic involvement of rare sites is mostly seen in aggressive and advanced malignancy. Reporting these rare cases remains essential to substantiate the index of suspicion, which is paramount to early diagnosis and better clinical outcomes. Most of these cases would require surgical management, if symptomatic.



Conclusions

In patients with known or suspected lung cancer, abdominal symptoms should raise the suspicion of GI metastases. All forms of lung cancer can metastasize to the GI tract with varying frequency, with a metastases from lung adenocarcinoma to the gastric cavity being a rare finding. This can lead to delay in diagnosis without an adequate index of suspicion.

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