

Metastatic Lung Cancer Presenting as an Acute Abdomen

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Introduction

Lung cancer is one of the leading causes of cancer-related deaths in the world. A large proportion of patients present with metastatic disease and the predominant sites of spread include brain, liver, adrenal glands, and bone. Gastrointestinal (GI) metastasis from primary lung carcinoma is rare; the small bowel is most involved. Furthermore, GI perforation as a result of metastatic lung cancer is extremely rare.

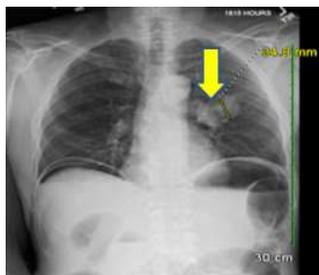


Fig 1

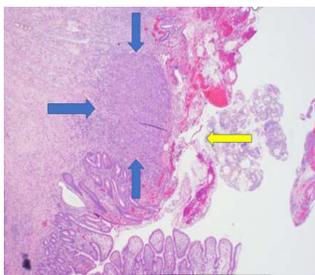


Fig 2

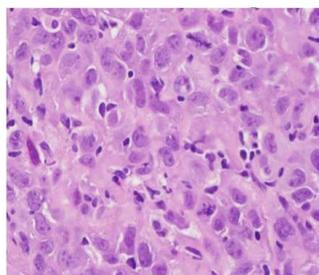


Fig 3

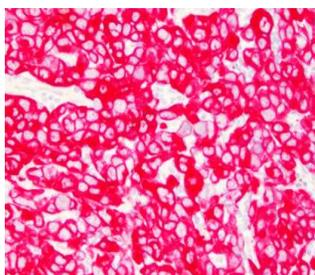


Fig 4

Figure 1. Free intraperitoneal air under the R hemidiaphragm, and L Perihilar lung mass (yellow arrow).

Figure 2. Focus of metastatic poorly differentiated carcinoma (blue arrows) at the site of perforation (yellow arrow). 20X HE stain.

Figure 3. High power view of metastatic poorly differentiated carcinoma.

Figure 4. Immunohistochemical stain: The tumor cells show positive cytoplasmic staining with Cytokeratin-7 (CK-7).

Case Description

A 58-year-old male patient with advanced non-small cell lung carcinoma (NSCLC) presented with sudden onset of diffuse abdominal pain, nausea and vomiting. The patient had been receiving pembrolizumab as palliative immunotherapy for biopsy-proven metastatic lung cancer to the right iliac bone.

On examination, he had involuntary guarding in the abdomen with rebound tenderness. Abdominal x-ray revealed a large amount of free intraperitoneal air.

He underwent emergent exploratory laparotomy which revealed a 2 cm x 2.5 cm perforation at the proximal jejunum with an adjacent mesenteric lymph node enlargement. A liter of intestinal contents was suctioned out and the perforated segment was resected with an adequate surgical margin. An end-to-end jejunal anastomosis made to restore intestinal continuity.

Histopathology of the jejunal specimen demonstrated metastatic poorly differentiated NSCLC which was identical to the findings from the previous fine needle aspirate of the right ilium soft tissue mass.

The patient was transferred to the intensive care unit following surgery. His hospital course was complicated by aspiration of GI contents during intubation prior to surgery. His condition improved gradually, and he was eventually discharged in stable condition.

Discussion

Small bowel is a rare metastatic site for lung cancer. A solitary small bowel metastasis is very rare due to NSCLC. As seen in our case, the jejunum is the most common gastrointestinal site in most studies. [1-3]. In some series, patients with bowel perforation as a result of metastatic NSCLC had a mean survival of 66 days [4]. Our patient was able to return to work six months after he underwent bowel resection for an acute abdomen due to metastatic perforation.

Conclusion

Acute abdomen due to metastatic lung cancer is rare and contributes to a poor prognosis. Small bowel metastases should be considered in a lung cancer patient presenting with an acute abdomen.

References

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