

## Unusual presentation of lung cancer: A case report

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Received - 09 May 2020

Initial Review - 24 May 2020

Accepted - 01 June 2020

### ABSTRACT

The most common presentation of lung cancer is a cough. Gastrointestinal metastasis of lung cancer is a rare presentation, but it is well documented in the literature with the small intestine being the most common site of metastasis. We report the case of a 67-year-old man, an undiagnosed case of lung cancer that presented to our emergency department with acute abdominal pain due to jejunal perforation.

**Key words:** Lung cancer, Metastasis, Perforation, Small intestine

Approximately 50% of the patients diagnosed with non-small cell lung cancer have metastatic disease at the time of diagnosis [1]. Lung cancers usually metastasize to the mediastinal lymph nodes, liver, brain, adrenal glands, and bones. Metastasis to the gastrointestinal (GI) tract is extremely rare [2]. We report the case of a 63-year-old man that presented with acute abdominal due to metastatic perforation of the small intestine from squamous cell carcinoma of the lung.

### CASE REPORT

A 63-year-old male patient presented to our emergency department with complaints of acute abdominal pain for 2 days. The pain was more in the upper abdomen, non-radiating, dull-aching in nature with no aggravating, or relieving factors. The patient did not have any previous history of dyspepsia or history suggestive of acid peptic disease. The patient has been a chronic smoker for over 32 years.

On examination, the patient had a pulse rate of 110 beats per minute with a blood pressure of 110/70 mmHg and was afebrile. His saturation at room air was 90%. On examination of his abdomen, there was diffuse abdominal tenderness, and abdominal rigidity was present.

A chest X-ray and an erect X-ray of the abdomen were taken. Abdominal X-ray revealed air under the diaphragm, as shown in Fig. 1, while the chest X-ray showed a small area of consolidation in the left lung, as shown in Fig. 2.

The patient was taken up for an explorative laparotomy in view of peritonitis and X-ray showing gas under the diaphragm. Intraoperative findings showed a 2 cm × 1 cm perforation in the mid-jejunum, as shown in Fig. 3 with hyperemia and edema noted in the surrounding small intestine. Ascitic fluid was also present, which was sent for cytology. It did not yield any malignant cells. A limited resection and anastomosis of the perforated segment of the bowel were performed followed by a thorough peritoneal lavage. Histopathological analysis

of the resected specimen showed metastatic carcinoma – probably squamous cell carcinoma, as shown in Fig. 4.

In view of the chest X-ray showing area of consolidation, the primary site was thought to be the lung and a contrast-enhanced computerized tomography (CECT) chest was taken. It revealed a large heterogeneously enhancing lesion in the superior segment in the left lower lobe of the left lung with enlarged mediastinal lymph nodes. A CT-guided biopsy confirmed the diagnosis of squamous cell carcinoma of the lung. An oncology opinion was sought and the patient was started on a cisplatin-based chemotherapy regimen. The patient was planned to receive six cycles of chemotherapy but had received only two cycles and was then lost to follow-up.

### DISCUSSION

The metastasis of lung cancer to the GI tract has been reported in the literature but is not commonly seen. Furthermore, metastatic lung cancer resulting in GI perforation is extremely rare [3]. McNeill *et al.* conducted a study to determine the incidence of clinically apparent metastases and also occult metastases of lung cancer to the small intestine. They found that bowel metastasis was present in 46 out of 431 patients with primary lung cancer [4]. Mosier *et al.*, in their study after a review of the literature, found 21 patients that presented with peritonitis, of which nine had undiagnosed lung cancer similar to our case [5].

Among the various histological types, adenocarcinoma is most commonly associated with bowel perforation (23.5%), while small cell carcinoma is the least (19.6%) [4,6]. The exact mechanism by which tumor metastasizes to the bowel remains controversial. The hematogenous route appears to be the most likely means of spread [7]. Some authors have even suggested a lymphatic route through the thoracic duct [8].

The various clinical features that can be seen following GI metastasis depends on the location of metastasis and invasion of



Figure 1: Abdominal X-ray showing gas under the diaphragm

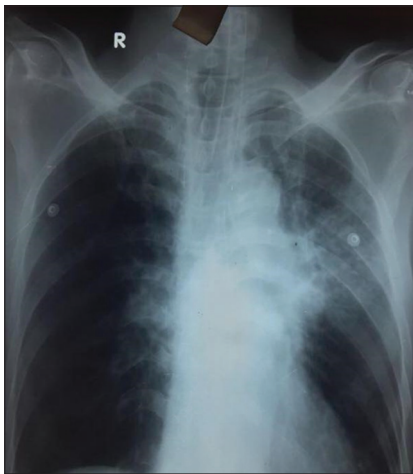


Figure 2: Chest X-ray showing a small area of consolidation in the left lung

the bowel wall [9]. Dysphagia, anemia, abdominal pain, melena, nausea, vomiting, and weight loss are the most commonly complained symptoms. Complication such as intestinal obstruction is more common as compared to perforation. When diagnosed cases of lung cancer present with an acute abdomen, CECT can play an important role in diagnosing obstruction or site of perforation.

## CONCLUSION

Acute abdomen as a presentation of lung cancer metastasis is rare and accounts for a poor prognosis. When patients with a known case of pulmonary neoplasm present with acute abdominal pain, it is necessary to consider complications of intestinal metastasis. Among the various parts of the GI tract, the small intestine is the most common site of metastasis. An undiagnosed case of lung cancer presenting with acute abdominal pain will require a strong degree of suspicion to determine the primary site.

## REFERENCES

1. Stenbygaard LE, Sørensen JB, Larsen H, Dombernowsky P. Metastatic pattern in non-resectable non-small cell lung cancer. *Acta Oncol* 1999;38:993-8.
2. Taira N, Kawabata T, Gabe A, Furugen T, Ichi T, Kushi K, *et al.* Analysis of



Figure 3: Intraoperative finding; Jejunal perforation

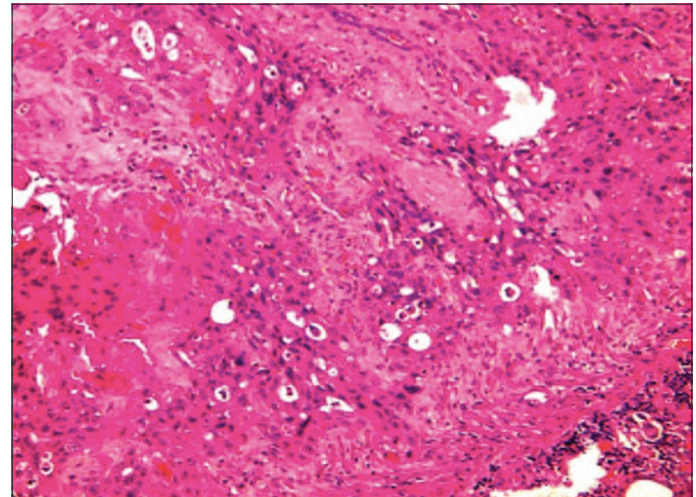


Figure 4: Histopathology showing metastatic squamous cell carcinoma to the small intestine

- gastrointestinal metastasis of primary lung cancer: Clinical characteristics and prognosis. *Oncol Lett* 2017;14:2399-404.
3. Yuksel O, Uyar P, Sahin TT, Demirhan B. Small bowel perforation due to metastatic lung squamous cell carcinoma. *Saudi Med J* 2007;28:631-3.
4. McNeill PM, Wagnuiian LD, Neifeld JP. Small bowel metastases from primary carcinoma of the lung. *Cancer* 1989;59:1486-9.
5. Mosier DM, Bloch RS, Cunningham PL, Dorman SA. Small bowel metastases from primary lung carcinoma: A rarity waiting to be found? *Am Surg* 1992;58:677-82.
6. Garwood RA, Sawyer MD, Ledesma EJ, Foley E, Claridge JA. A case and review of bowel perforation secondary to metastatic lung cancer. *Am Surg* 2005;71:110-6.
7. Locher C, Grivaux M, Locher C, Jeandel R, Blanchon F. Intestinal metastases from lung cancer. *Rev Mal Respir* 2006;23:273-6.
8. Guner A, Karyagar S, Livaoglu A, Kece C, Kucuktulu U. Small bowel intussusception due to metastasized sarcomatoid carcinoma of the lung: A rare cause of intestinal obstruction in adults. *Case Rep Surg* 2012;2012:962683.
9. Kostakou C, Khaldi L, Flossos A. Melena: A rare complication of duodenal metastases from primary carcinoma of the lung. *World J Gastroenterol* 2007;13:1282-5.

*Funding: None; Conflict of Interest: None Stated.*

**How to cite this article:** Pereira C, Tauro LF. Unusual presentation of lung cancer: A case report. *Indian J Case Reports*. 2020;6(6):323-324.

Doi: 10.32677/IJCR.2020.v06.i06.013