

Perforation of small intestine due to metastatic lung carcinoma

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DESCRIPTION

A 66-year-old woman with a history of 40 pack-year cigarette smoking and type II diabetes mellitus presented to the emergency department with unexplained weight loss and cough for a few weeks. These complaints constituted her first clinical manifestation. Physical examination was notable for diffuse abdominal tenderness. Chest and abdominal films ([figure 1](#)) revealed a prominent round opaque lesion in the right lung (arrow) and a large amount of free air under diaphragms with air-fluid levels.

The patient underwent an urgent laparotomy for pneumoperitoneum. Perforation of the small intestine due to a malignant metastasis was detected. The patient underwent a wide resection of the small intestine with closed loop anastomosis. The biopsy specimen was consistent with poorly differentiated squamous cell lung carcinoma staining positively for PDL-1 receptor. Her postoperative course was malignant, including: superior vena cava syndrome treated with a stent, redo operation due to eventration and nosocomial pneumonia, and she was transferred to an oncologic centre for palliative mediastinal radiation. The patient succumbed 6 weeks after admission.

The most common malignancy accounting for gastrointestinal perforation is lung cancer, which

tends to primarily involve the small bowel and is usually accompanied by a small amount of free air.¹ Lung cancer frequently metastasises to brain, liver, bones and adrenals. However, small intestine metastasis of primary lung cancer may occur in up to 10.7% of the cases. It has also been reported that about 30% of intestinal metastases of primary lung cancer were squamous cell carcinoma by pathology subtype. Perforation of the small bowel by metastasis of lung carcinoma is a poor prognostic indicator with median survival of 1.5 months.²

Learning points

- ▶ Peritonitis in a heavy smoker patient with unexplained ongoing weight loss may be due to intestinal perforation caused by remote metastasis.
- ▶ The prognosis of a patient with an intestinal perforation due to lung cancer metastasis is poor.

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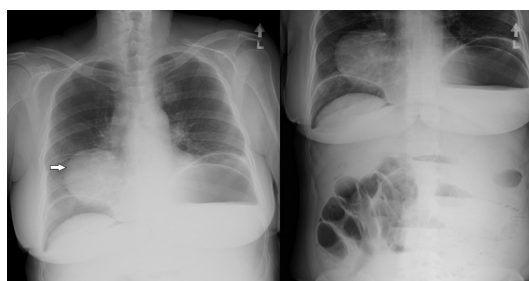


Figure 1 Upright chest (left) and abdominal (right) films demonstrating round opaque lesion (arrow) and free air under diaphragms and levels of fluid in the stomach and intestine.



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