Asymptomatic Giant Cell Lung Carcinoma Presenting As A Small Bowel Intussusception

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Citation


Abstract

Metastasis to the small bowel from lung carcinoma is extremely rare and tends to be asymptomatic, being determined mainly on postmortem examinations. We present an unusual case of a patient in whom small bowel intussusception was the presenting feature of an underlying asymptomatic giant cell lung carcinoma. This patient underwent two resections and the histology on both occasions was inconclusive suggesting either a primary pleomorphic giant cell carcinoma of the small bowel, or a metastatic deposit from an unknown primary. All her basic investigations including a chest x-ray were normal however respiratory distress prompted a CT chest which revealed the primary lesion. The rate of metastases to the small bowel from lung carcinoma is between 4.6-14%, however a majority of patients are asymptomatic and die prior to being diagnosed.

INTRODUCTION

Primary malignant small bowel tumours are rare and account for about 1-5% of all gastrointestinal neoplasms, with adenocarcinomas being the most common followed by carcinoid tumors (1). These tumors usually present late, with features of local invasion and distant metastasis. Small bowel is not a common site for metastases however tumors of varying origins have been reported to metastasize to this site. These include renal cell carcinomas, osteosarcomas, laryngeal carcinomas, prostatic carcinomas, breast carcinoma, salivary gland tumors, malignant melanomas, and lung carcinomas (2,3,4,5,6,7,8). Secondaries to the small bowel usually present with signs and symptoms of obstruction and perforation, but sometimes can also present with anemia and melaena (2,3,4,5,6).

It is well established that lung carcinoma metastasizes to the small bowel (2,3,4,5,6), however these tend to be asymptomatic and are determined on postmortem examination (3,4,5). Symptomatic small bowel metastases from lung carcinomas thought to be rare has been reported in the literature (2,3,4,5,6). Of those cases which have been reported, a majority have been subsequent to the primary diagnosis having already been established. We present an unusual case of a patient in whom small bowel intussusception was the presenting feature of an underlying giant cell lung carcinoma.

CASE REPORT

A forty seven year old Caucasian woman presented as an emergency with vomiting and abdominal pain. After preliminary investigations, a diagnosis of small bowel obstruction was made and she underwent an emergency laparotomy. Operative findings were those of an intussusception caused by a polypoidal lesion in the jejunum and a further four similar lesions scattered in the jejunum. All lesions were removed by resection of the small bowel. The remainder of the laparotomy was normal and she made an uneventful postoperative recovery. Histopathology, including H&E staining and immunohistochemistry suggested the possibility of either a primary pleomorphic giant cell carcinoma of the small bowel, or a metastatic deposit from an unknown primary.

Subsequent post operative investigations included a chest x-ray, CT scans of the abdomen and pelvis, and colonoscopy, which revealed no significant abnormality. However, a small bowel contrast study six weeks after her laparotomy revealed a future four similar polypoidal lesions in her small bowel. Another emergency laparotomy was performed and she underwent a fairly extensive small bowel resection to remove these lesions. Postoperatively, she developed respiratory distress and required ventilation. Suspecting a pulmonary embolism, a CT pulmonary angiogram was performed, which revealed a bronchial mass whose histology was the same as the small bowel lesions. The patient could...
not be extubated due to her respiratory condition and she
died about 24 hours after her second laparotomy.

DISCUSSION
The presentation of lung cancers is non specific, usually with
pulmonary signs and symptoms, paraneoplastic syndromes
or with features of distant metastases. The latter are usually
present in half of the cases at the time of the initial
diagnosis. Bone, liver, adrenal glands, lymph nodes and
brain being the commonest sites involved. Intraabdominal
catastrophe secondary to small bowel metastases has rarely
been described (1). Autopsy finding from a large North
American series (2) showed small bowel metastases to be
present in 46 of 431 (10.6%) patients with lung carcinoma.
Of these, only six presented with clinical signs of small
bowel pathology during their life time. In none of these,
however, were small bowel lesions a presenting feature of
the underlying lung carcinoma. A similar study from
Denmark reported that of the 218 autopsies performed on
patients with lung carcinoma, only 10 (4.6%) had small
bowel metastases (4). The prevalence in Japanese literature is
significantly less with only 30 of 1635 (1.8%) lung cancer
patients having gastrointestinal metastases on postmortem
examination, with the commonest primary being large cell
lung carcinoma and the small bowel being the most common
secondary site (8). This difference is mainly due to a better
developed screening programme for malignancies resulting
in early detection and treatment.

A clinical review of symptomatic small bowel metastases
from lung cancer shows that of the 34 reported cases, the
majority had abdominal pain as a presenting feature and the
most favoured site for metastases was the jejunum (8). There
have only been three reported cases of small bowel
intussusception due to a lung secondary in the literature
(5,6,7), with only a dozen cases of an asymptomatic lung
tumor presenting with features small bowel obstruction due
to metastases there (8).

The overall rate of metastases to small bowel from a lung
primary is between 4.6-14%, as compared to 5.2% from
malignant melanomas, suggesting that this may not be as
rare a feature as previously thought to be. This reason for
this could be because patients tend to live longer after the
diagnosis of their primary cancer owing to better and
aggressive treatment modalities (9).

This case report emphasizes that metastasis to the small
bowel can be from various carcinomas and with the
increasing incidence of lung cancer, particularly in females,
this possibility must be considered and appropriate
investigation done at an early stage. In patients with small
bowel obstruction, due to a secondary malignancy, a CT
scan of the chest should be performed to attempt to
demonstrate the primary lesion. It should, however, be borne
in mind that prognosis of patients with small bowel
secondaries from any primary source is dismal and the
average life expectancy is only a few months after diagnosis.

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