

Isolated Splenic Metastasis from Non Small Cell Lung Cancer

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Lung cancer is amongst the commonest cancers in the world. Most patients present in advanced stages precluding curative treatment. Distant metastases usually occur in the liver, brain, bones and adrenals. Isolated splenic metastases are rare and are restricted to anecdotal reports in medical literature. We report a middle-aged man who presented to us with locoregionally advanced non small cell lung cancer, progressed on neoadjuvant chemotherapy and developed isolated splenic metastasis. (Ann Thorac Cardiovasc Surg 2004; 10: 247–8)

Key words: non small cell lung cancer, splenic metastasis

Introduction

Splenic metastasis from lung cancer is rare and is most often diagnosed at autopsy. Involvement of the spleen as part of disseminated lung cancer may not be uncommon, but isolated splenic involvement is extremely rare.¹⁾ We report the rare occurrence of a middle-aged man with lung cancer who developed splenic metastasis while on chemotherapy.

Case Report

A 55-year-old man presented to us with a three-month history of cough and chest pain. He was a chronic smoker and his past medical history was unremarkable. Clinical examination revealed reduced air entry in the left upper and mid zones. He had no supraclavicular lymphadenopathy. A chest radiograph showed an inhomogeneous left hilar opacity. Computed tomography (CT) scan showed a large 6.5×5 cm hilar mass with mediastinal infiltration (Fig. 1). Para-aortic, subaortic (aortopulmonary window) and paratracheal lymph nodes were grossly enlarged. There was no

metastasis in any of the intra-abdominal organs. Fiberoptic bronchoscopy showed a stenotic lesion in the opening of the left upper lobe bronchus. Bronchoscopic biopsy confirmed a diagnosis of squamous carcinoma. A routine metastatic workup revealed normal liver, spleen, adrenals and no bone or brain metastases. His final clinicoradiologic staging was cT3N2M0 (stage IIIA) non small cell lung cancer. We gave him neoadjuvant chemotherapy (gemcitabine with carboplatin) with a view to assess him for local therapy after completion of chemotherapy. A repeat CT scan after two cycles of chemotherapy showed progression of disease with increase in size of the tumor and involvement of the mediastinal structures (Fig. 2). In addition, it showed a 3.5 cm nodule with mild peripheral enhancement in the upper pole of the spleen (Fig. 3) suggestive of splenic metastasis. As the primary tumor itself was unresectable, we did not perform a splenectomy or attempt a tissue diagnosis from the splenic lesion. We have now treated him with palliative radiotherapy.

Discussion

Isolated splenic metastasis from a primary lung cancer is extremely rare and is restricted to anecdotal case reports in medical literature. Even when they are present, they are usually part of disseminated abdominal disease. In a retrospective analysis of 997 patients by Satoh and colleagues,²⁾ there were only 12 patients

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Fig. 1. Pre-chemotherapy CT scan showing a large mass in the left upper lobe with hilar infiltration.

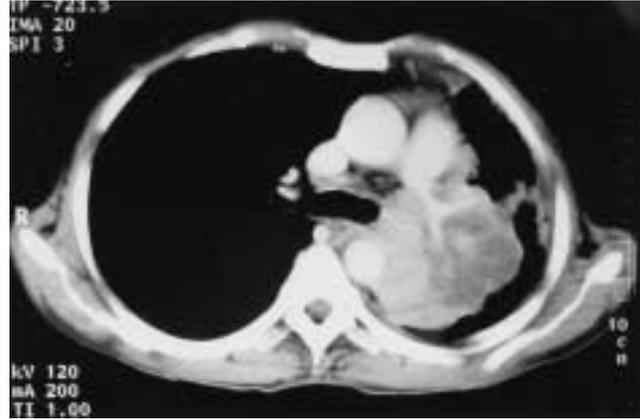


Fig. 2. Post-chemotherapy CT scan showing progression of disease with gross mediastinal infiltration.

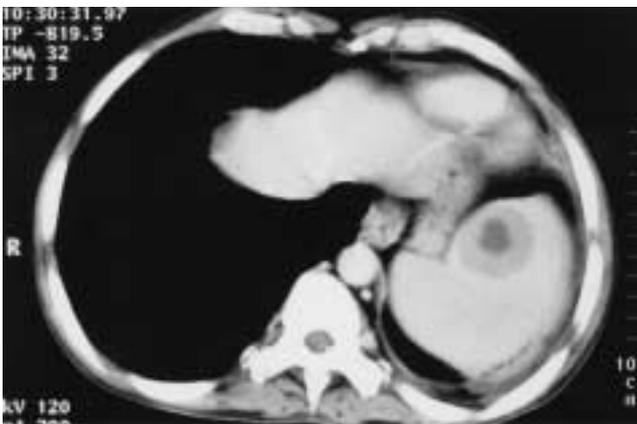


Fig. 3. Post-chemotherapy CT scan showing a 3.5 cm nodule with mild peripheral enhancement in the upper pole of the spleen, suggestive of metastasis.

with splenic metastases; however, all 12 patients had other abdominal organ metastases as well. Isolated splenic metastases are extremely rare and fewer than 20 cases have been reported, and only three of them from a lung primary.³⁾ The spleen has generally been considered poor soil for tumor deposits, probably because of the high population of immune cells and its role in immune surveillance. The production of angiogenesis-inhibiting factors is another explanation for the rarity of splenic metastases.³⁾

The presentation may be synchronous or metachronous. They are not usually suspected at presentation and are generally diagnosed after splenectomy or at autopsy. Curiously, splenic metastases are more common from a primary cancer of the left lung than the right.¹⁾ Management has to be individualized and splenectomy offered to patients with otherwise favorable primary tumor features and absence of dissemination. In patients where the pri-

mary tumor is itself unresectable or in the presence of disseminated disease, treatment is aimed at palliation of symptoms. The important point is that, in patients who are otherwise considered for curative treatment for the primary, the presence of a splenic lesion should alert the clinician to the possibility of metastasis and the final treatment plan should consider this.

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