Images in...

Small cell, large liver

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DESCRIPTION

A 52-year-old heavy smoker presented with history of abdominal pain of 2-month duration. He developed cough and streaky haemoptysis for 15 days. Physical examination revealed mildly tender and enlarged nodular liver palpable upto the right iliac fossa. Contrast-enhanced CT examination of the thorax and abdomen (figure 1A) was performed which showed a right upper lobe lung mass (figure 1B) along with multiple variable-sized hypoechoic and cystic space-occupying lesions replacing the entire liver architecture (figure 1C). Serum transaminases and serum bilirubin were elevated 10-fold and 3-fold, respectively. Possibilities considered were hepatocellular carcinoma with pulmonary metastasis or extensive liver metastasis from primary lung carcinoma. Ultrasound-guided fine-needle aspiration cytology examination from the liver (figure 1D) confirmed the diagnosis of metastatic

small cell lung cancer (SCLC). In view of poor performance status (ECOG-3), the patient's relatives refused chemotherapy and opted for best supportive care alone.

SCLC is one of the most aggressive tumours known in humans. The median survival in untreated patients with metastatic disease is approximately 2 months. The strongest recognised association is with tobacco smoking. The tumour is characterised by a propensity to spread extensively, the most common sites of involvement being liver, bone and bone marrow, central nervous system, adrenals and extrathoracic lymph nodes. Even if treated, more than 95% of patients die due to the disease.¹

Liver represents the most common site of metastasis in patients with cancer and liver metastasis has been reported in up to 36% of patients dying due to cancer. Patients with SCLC can have small primary lesions and extensive metastatic involvement of distant sites

Figure 1 Contrast-enhanced CT coronal image (A) showing right upper lobe lung mass (axial section seen in (B)) and massive liver enlargement with near total replacement of the liver architecture with multiple variable-sized hypoechoic and cystic metastatic deposits (axial section seen in (C)). Fine-needle aspiration cytology smears from the liver showing clusters of small-sized malignant cells with high N:C (nuclear:cytoplasmic) ratio and crush artefacts confirming the diagnosis of small cell lung carcinoma.

especially the liver. Even fulminant hepatic failure has been recognised as a consequence of extensive hepatic parenchymal infiltration from small cell lung cancer.²

Learning points

- ▶ Abdominal pain is an uncommon presenting manifestation of small cell lung cancer.
- ▶ Patients with small cell lung cancer can have small primary lesions and extensive metastatic involvement of the liver at presentation. However, cytological/histological confirmation is mandatory for establishing a diagnosis and excluding hepatocellular carcinoma.

Competing interests None.

Patient consent Obtained.

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