

CLINICAL VIGNETTE

Giant small-cell neuroendocrine carcinoma infiltrating the heart

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A 62-year-old man without the history of chronic disease was admitted to hospital due to dyspnoea, dry cough, and deterioration in exercise tolerance, which started three weeks earlier. Physical examination showed peripheral oedema and elevated blood pressure (160/100 mmHg). Chest X-ray showed massive enlargement of the mediastinum. Scheduled computed tomography (CT) (Fig. 1A) revealed a non-homogeneous, contrast-enhanced mass of 120 × 120 × 90 mm on the right side of the mediastinum. It started below the right branch of the pulmonary artery, pressing the superior vena cava and right and left atrium. At the level of the coronary sinus, the tumour grew into the right atrium. The heart chambers were displaced, without features of infiltration. The tumour crossed the diaphragm line. The liver was compressed and displaced, and the infiltration was not possible to assess, mainly within segment IV. The CT also showed visibly enlarged lymph nodes (up to 18 mm) in the upper mediastinum. Based on the CT image the tumour was suspected to be a sarcoma originating from the right atrial wall. It was decided that a fine-needle biopsy of the tumour should be performed. Histopathological examination showed that the mass was a small-cell neuroendocrine carcinoma. The patient was consulted with an oncologist and scheduled for chemotherapy with cisplatin and etoposide. Follow-up CTs performed after two (Fig. 1B) and three (Fig. 1C) months of chemotherapy showed spectacular regression of the tumour. Primary neuroendocrine carcinomas of the mediastinum are very rare (2%–4% of all mediastinal tumours) and usually are of thymic or epithelial origin. Infiltrative growth of the tumour is common but rarely involves heart.

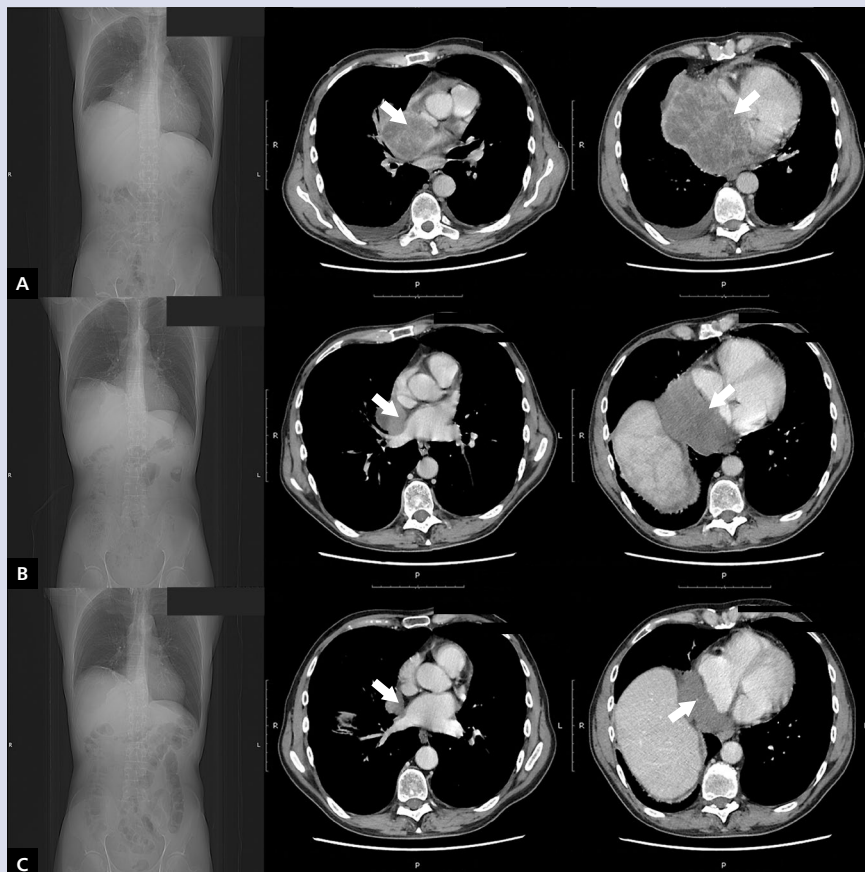


Figure 1. Computed tomography scans at baseline (A), two months (B), and three months (C) from the initiation of chemotherapy; arrows indicate the tumour

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