

Images in Cardiology

A Case of Right Atrial Mass

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A 70-year-old man with histologically proven hepatocellular carcinoma (HCC) (Figure 1, left panel) was sent for echocardiography before chemotherapy. Transthoracic echocardiography revealed an echogenic mass of about 4.2 cm² in the right atrium which was moving to and fro with different phases of cardiac cycle (Figure 2, left panel). No definite stalk could be identified. Careful review of ultrasonography demonstrated a smaller echogenic mass in the terminal part of inferior vena cava. (Figure 1, right panel) In the context of HCC, the right atrial mass is likely to be an intracardiac metastasis; however it was not proved by biopsy.

The primary tumour most frequently involving the right heart is renal cell carcinoma (about 4-10% cases)¹, followed by carcinoma of the thyroid, testicular tumors and then HCC². HCC spreads most frequently to the lungs, peritoneum, adrenal glands and bones.² Intracavitary cardiac extension or metastasis by HCC is uncommon, and has been reported in few cases.³⁻⁷

The prognosis of HCC with intracardiac involvement is poor, with a median survival range of 1 to 4 months.³ Surgery or thalidomide may be used for palliation.^{3,6,7}



Fig-1: Ultrasonogram of liver showing the hepatocellular carcinoma mass in the right hepatic lobe (left panel), and a likely metastatic mass in the inferior vena cava (right panel).



Fig-2: The echogenic mass in the right atrium in apical 4-chamber view (left panel), and the same mass protruding across the tricuspid valve in subcostal 4-chamber view (right panel).

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