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Intracardiac metastasis of malignant melanoma

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KEYWORDS
Cardiac metastasis;
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Aim To report a case of intracardiac metastasis of malignant melanoma with multiple mobile, large masses in left atrium (LA), left ventricle (LV) and right atrium (RA).

Case report

We describe a 51-year-old woman presented with quadriplegia. She had a history of brain tumor about 4 months ago and underwent surgery. The histopathologic examination was compatible with melanoma. Twenty days later, she presented with quadriplegia. The magnetic resonance imaging (MRI) revealed cervical and lumbar epidural space involvement. Due to pressure effect of tumor on spinal cord our neurosurgeon decided to decompress the spinal cord so she was scheduled for surgery and a cardiology consultation was requested. The cardiac examination was normal (except for a diastolic murmur). Transthoracic and transesophageal echocardiography was performed and multiple mobile, homogeneous and well delineated masses were recognized. There was a mobile and pedunculated mass in left atrium (2.2×1.7 cm) originating from the base of interatrial septum (IAS), and another mass (2×1.8 cm) was found near base of anterolateral papillary muscle in the LV. There were two large masses in the right atrium measuring 5×6 cm and 5×4.5 cm, respectively. One of the masses was attached to the base of the IAS and the other to the base of the lateral leaflet of tricuspid valve (*Figures 1* and 2). Masses in the RA produced significant obstruction of the tricuspid valve. There was also mild pericardial effusion. She underwent surgery for removal of the masses. Large masses in the right chambers and LA were removed. The free wall of the RA was invaded by tumor. Pathology of extracted tumor showed malignant melanoma.

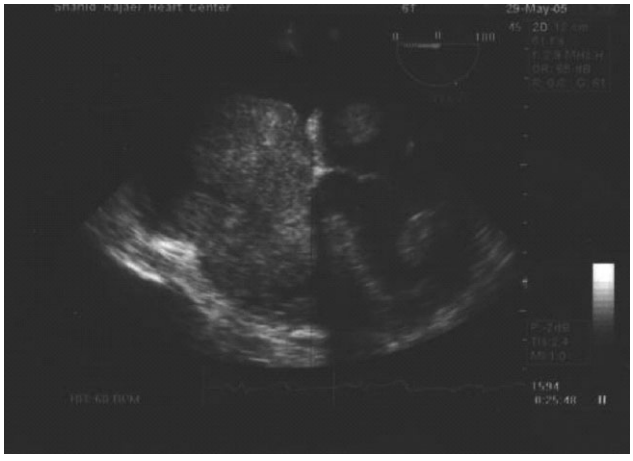

Figure 1 Multiple masses in the right atrium (protruding into the right ventricle), left ventricle and left atrium.

Discussion

Metastases to the pericardium and the heart are much more common than primary cardiac tumors and are generally associated with a poor prognosis.[1,2] Lung and breast cancers, melanoma and lymphoma[3,4] most likely invade the heart and the pericardium. The incidence of primary and secondary malignant tumors varies and is approximately 1% in routine autopsy series and 4% in cancer patients' autopsies. Diagnosis is mainly made by echocardiography. Melanoma is a neoplasm with a dismal prognosis, due to its propensity for metastasizing early with few symptoms. In our patient there were large masses in right chamber (2 large masses in RA with protrusion into RV), a mass in LA

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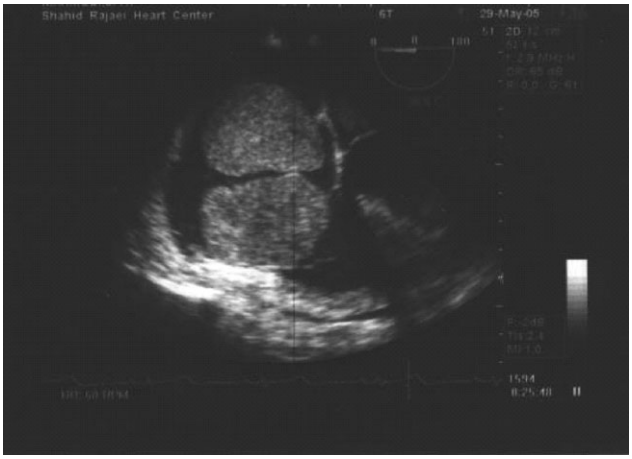

Figure 2 Large masses in right atrium and pericardial effusion.

and another mass in LV. Removal of large masses in RA that produce functional tricuspid obstruction prevents symptoms of right sided failure and pulmonary hypertension. LA mass was also removed but LV mass was not removed because of its attachment to papillary muscle, so as not to impair mitral apparatus function.

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