

CARDIAC METASTASES IN A PATIENT WITH ADVANCED SQUAMOUS CELL CARCINOMA OF THE LUNG

Mohammad A. Khan, M.B.B.S.; Faisal Nabi, M.D.
Houston Methodist Hospital, Houston, Texas

A 38-year-old nonsmoking female with a history of squamous cell carcinoma in the left lung (Figure A) presented to Houston Methodist Hospital for worsening shortness of breath. Transthoracic echocardiography was performed, demonstrating increased thickness and echogenicity in the inferolateral wall with a mobile component projecting into the left ventricular (LV) cavity (Figures B, C). The patient underwent cardiac magnetic resonance imaging (CMR) for further evaluation and tissue characterization of the mass. CMR images confirmed an inferolateral LV mass (Figure D) with tissue characterization as follows: heterogeneous and hyperintense relative to myocardium on T1 and T2 weighted images, hypoperfused on first-pass perfusion relative to myocardium, and with late gadolinium hyperenhancement (Figure E). These findings were consistent with a tumor and likely represent metastatic disease considering the patient's history. Further dedicated computed tomography and MRI imaging demonstrated concomitant collapsed left lower lobe and metastasis to the brain, liver (Figure F), and adrenal glands.

Metastatic tumor is the most common tumor of the heart.^{1,2} Cardiac metastases are often clinically silent but may manifest with nonspecific symptoms depending on the location and size.³ Tumor metastasis occurs by hematogenous, lymphatic, or transvenous spread or direct extension. Cardiac metastases manifests in advanced stages of cancer, and treatment is mostly palliative.⁴

References

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