

Peculiar left ventricular outflow tract masses causing dynamic outflow obstruction

J.J. Liebenberg, A.F. Doubell and P.G. Herbst

Division of Cardiology, Department of Medicine, Faculty of Medicine and Health Sciences, University of Stellenbosch and Tygerberg Hospital, Tygerberg, South Africa

Address for correspondence:

J.J. Liebenberg
Division of Cardiology
Department of Medicine
Faculty of Medicine and Health Sciences
Tygerberg Hospital
Francie van Zijl Drive
Parow
7500
South Africa

Email:

liebjurg@gmail.com

We present the echocardiographic data of two patients referred to our unit for evaluation of left ventricular outflow tract (LVOT) masses detected echocardiographically at other centers. Patient A is a 20-year-old female found to have a cardiac murmur during an antenatal visit, 23 weeks into her pregnancy. She was asymptomatic with no clinical features of heart failure. Patient B, a 57-year-old male, presented after detection of an aortic regurgitation (AR) murmur found incidentally during a routine evaluation. Patient A had a mass, which was considered to be cystic, that originated from the mitral-aortic continuity and measured 13mm by 10mm. Patient B was referred with a myxomatous appearing mass arising from the LVOT measuring 17mm by 15mm. Peak LVOT gradients were 125mmHg and 32mmHg respectively. The continuous wave Doppler in both patients showed characteristic late-peaking velocity curves with a concave ascending limb in early systole in keeping with dynamic LVOT obstruction (LVOTO). No structural or congenital abnormalities were detected in patient A. Patient B had a clinical diagnosis of Kartagener's syndrome, associated with situs inversus and dextrocardia, but otherwise had a structurally normal heart. Both patients had normal left ventricular systolic function.

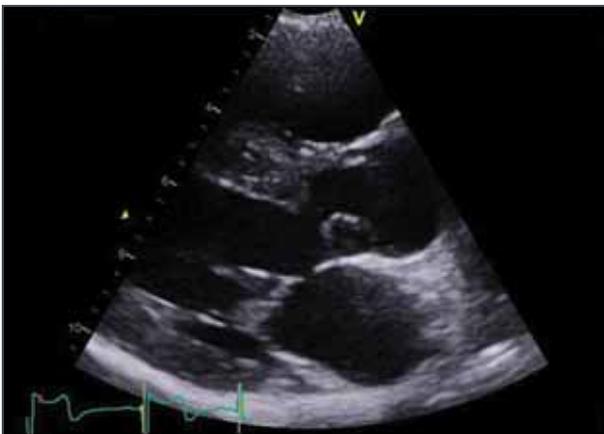


FIGURE 1: Patient A. Parasternal long axis view (PSLAX) illustrating cystic appearing mass.

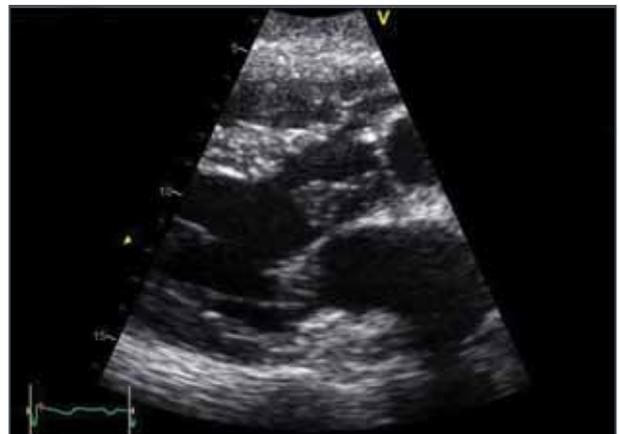


FIGURE 2: Patient B. PSLAX view illustrating myxomatous appearing mass.

Which ONE of the following is the most likely diagnosis?

- | | |
|--|----------------------------------|
| a. Primary/secondary malignancy of the heart | e. Accessory mitral valve tissue |
| b. LVOT myxoma | f. Papillary fibroelastomas |
| c. Echinococcus cyst | g. Subaortic web/membrane |
| d. Intracardiac thrombus | h. Redundant MV chordae |