



A UNIQUE CASE OF A UNILEAFLET MITRAL VALVE

Dureshahwar Ali DO, Suchitra Muralidharan DO, Iga Fudyma DO, Andrew Mariano DO, Rahul Patel DO, Tarun Jain MD, Shiva Shashidharan MD, Nha Huynh DO

Riverside Medical Center, Heart and Vascular Institute, Kankakee, Illinois



Background

Posterior mitral valve leaflet agenesis is a rare congenital heart defect. We describe a case of an adult male not only surviving with this anomaly but also presenting with the additional complexity of myxomatous mitral valve prolapse.

Case Presentation

55-year-old male with a history of thoracic lordosis and intellectual disability presented for further evaluation of reported mitral valve prolapse. Initial transthoracic echocardiography (TTE) demonstrated a myxomatous mitral valve with an absent or hypoplastic posterior leaflet and mild mitral regurgitation, raising suspicion for a congenital anomaly. Subsequent transesophageal echocardiography (TEE) showed myxomatous mitral valve with elongated anterior leaflet, an absent/hypoplastic posterior leaflet, with mild mitral regurgitation (MR), and normal systolic function. Despite this rare congenital anomaly, the patient remained asymptomatic. He had serial clinical exams and TTE which continued to demonstrate stable mild MR and normal left ventricular size and function.

Decision-Making

Our patient does not meet criteria for any surgical intervention. Findings of preserved left ventricular function, absence of significant mitral regurgitation or stenosis, and asymptomatic status all support a conservative approach. The prognosis in asymptomatic individuals is unclear; however, there is a potential for worsening MR with age due to annular dilation.

Hypoplasia of posterior leaflet is a rare congenital anomaly, often accompanied by myxomatous changes and elongation of the anterior leaflet.

The true prevalence remains unknown, likely due to underdiagnosis, especially in asymptomatic individuals.

Our case highlights the role of echocardiography in accurate diagnosis, and the importance of periodic surveillance in detection and progression of mitral regurgitation in such cases

There are no guidelines or recommendations currently for screening or follow-up monitoring of this congenital anomaly

Images

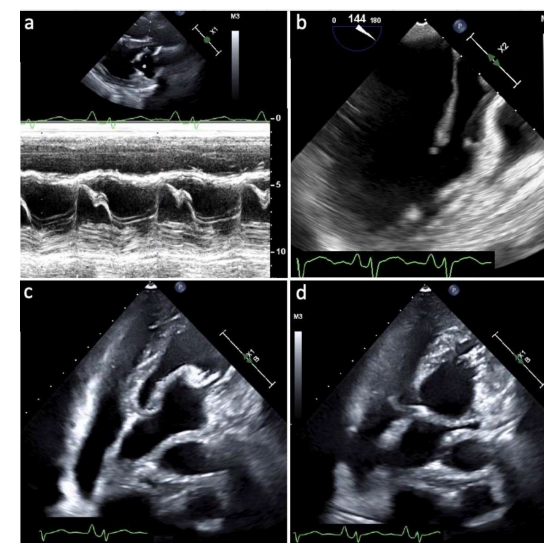


Figure (a) m-mode demonstrating absence of posterior mitral valve leaflet (b) 4-chamber view showing elongated anterior leaflet of MV (c and d) displays prominent, thickened, and elongated anterior leaflet.

Conclusions

This case demonstrates the potential for delayed presentation and variable clinical course in adults with congenital heart disease, even with significant structural abnormalities like a unileaflet mitral valve. It highlights the importance of thorough cardiac evaluation and ongoing surveillance in such patients, regardless of initial symptom severity.

Disclosure Information

Nothing to disclose