

Moderate Mitral Regurgitation Secondary to Hammock Congenital Mitral Valve Disease

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CLINIC CASE

A 30-year-old woman with a history of systemic lupus erythematosus and hypothyroidism under treatment. She started her condition 3 years ago with dyspnea on moderate exertion, orthopnea, and a sensation of palpitations. Therefore, she went to the medical service where, on physical examination, an early systolic murmur of mitral regurgitation

was found. A 12-lead electrocardiogram was performed, showing a pattern of left atrial growth. Transthoracic and transesophageal echocardiography reported hammock congenital mitral valve disease as a cause of mitral regurgitation with impaired functional class, requiring surgical valve replacement.

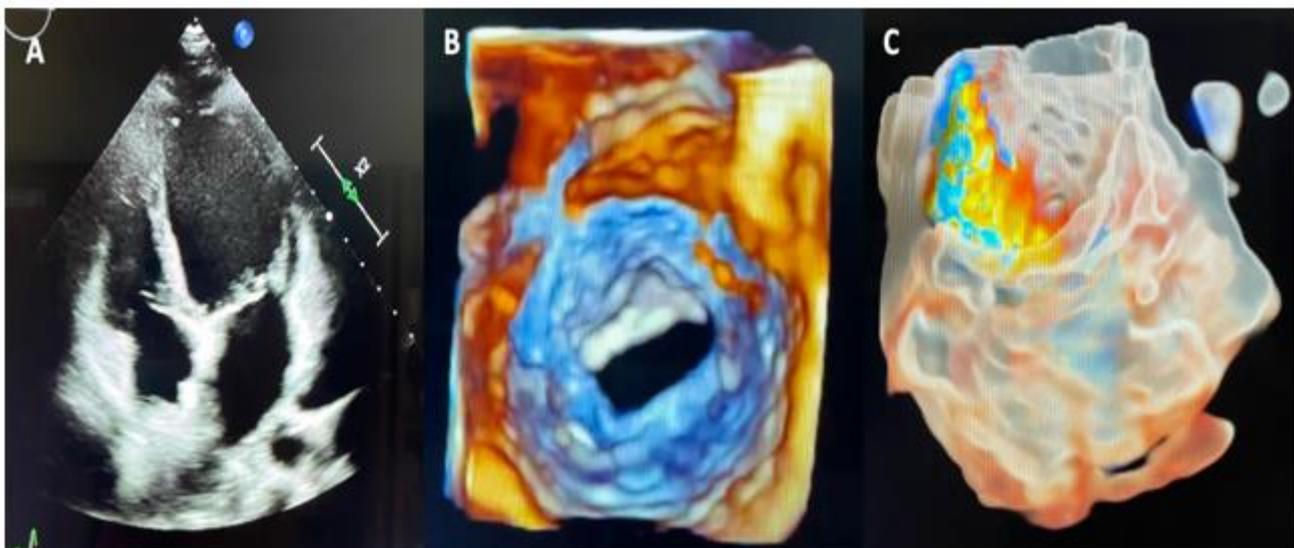


Figure 1. (A) Transthoracic and transesophageal echocardiogram in apical 4-chamber approach showing left atrial dilatation, LVEF of 70%. (B) Reconstruction of mitral valve area of 4.08 cm², VTI 19.9 cm and mean gradient 70 mmHg, where leaflet folding in the form of a hammock is observed. (C) Three-dimensional image showing regurgitating flow into the left atrial cavity due to moderate mitral regurgitation.

LVEF: Left ventricular ejection fraction, **VTI:** Velocity Time Integral

The mitral arcade, or hammock mitral valve, is a very rare entity, even more so in the adult population, with a reported prevalence of 0.5%. This anomaly, first described in 1967, involves the valve and the mitral tensor apparatus^{1,2}. It is characterized by abnormal papillary muscles connected directly to the anterior mitral valve by a fibrous bridge with

no chordae tendineae between them. This fibrous bridging makes it difficult to open and close the mitral valve³.

Conflict of interest: None declared.

Consent: Informed consent was obtained from patient.

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REFERENCES

- I. Séguélaa PE, Houyelb L, Acara P. Congenital malformations of the mitral valve. *Arch Cardiovasc Dis* 2011;104: 465-79.
- II. Carbonero DR, Estandia U, Perez C, Voces R, Perez P, Panera E. P1720 Hammock mitral valve, a challenging echocardiographic diagnosis, *European Heart Journal Cardiovascular Imaging*, Volume 21, Issue Supplement_1, January 2020, jez319.1082.
- III. Nair RG, Sajeer K, Nair A, Govindan SC, Narayanan KM. Hammock mitral valve: A rare cause of congenital mitral regurgitation – A case report. *Volume 66, Issue 3, May–June 2014, Pages 370-371.*