Atrial Myxoma and Bicuspid Aortic Valve: A Rare Coexistence in Cardiac Pathology

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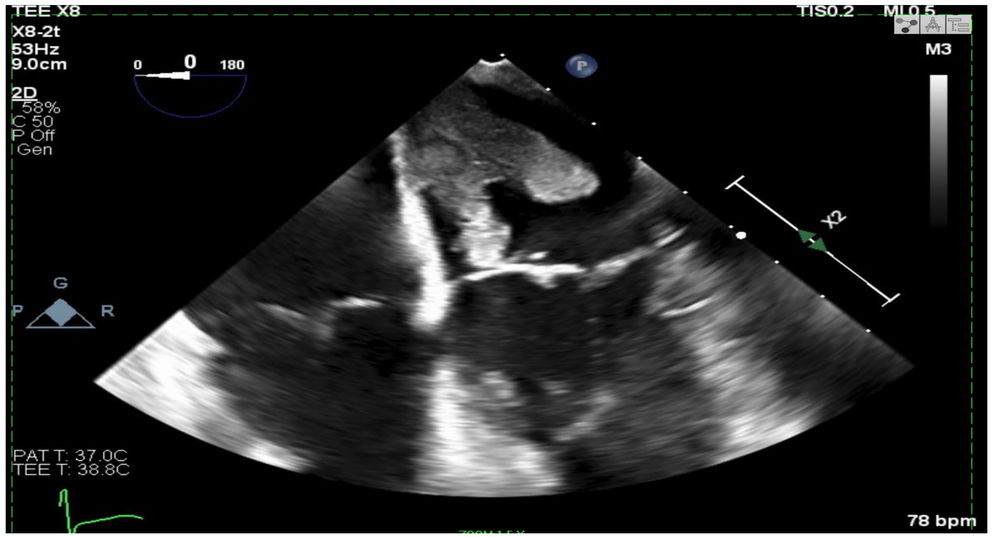
Background

Atrial myxoma and bicuspid aortic valve are two distinct cardiac conditions that rarely coexist. The incidence of atrial myxoma is approximately 0.03% and that of bicuspid aortic valve is about 1%. The coexistence of these two conditions poses unique challenges for diagnosis and management.

Case Description

A 46-year-old female with no significant past medical history presented with left-sided weakness, right-sided facial droop and visual disturbance. MRI brain was consistent with bilateral punctate infarcts. A transthoracic echocardiogram was obtained which revealed an atrial myxoma. A TEE was later obtained for which showed a 3.7cm x 3.2cm left atrial mass prolapsing into the mitral valve. Additionally, a bicuspid aortic valve was surprisingly identified along with a small PFO. She was started on aspirin and atorvastatin and left heart catheterization was done which revealed patent coronary arteries. Surgical resection of the mass was performed uneventfully, and histological examination confirmed that the mass was a myxoma.

Figure 1: Transesophageal echocardiogram showing the atrial myxoma



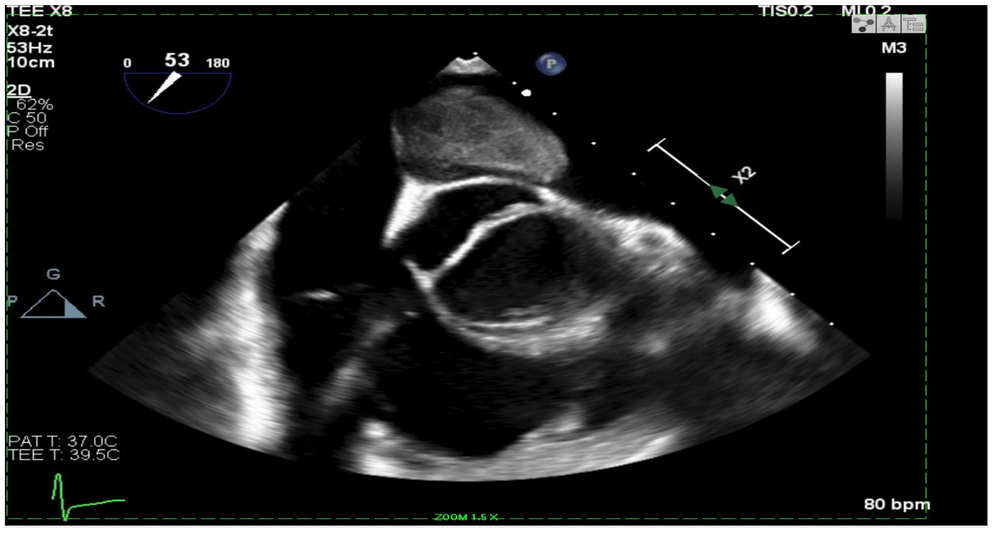


Figure 2: Transesophageal echocardiogram showing the bicuspid atrial valve

Discussion

The clinical presentation of patients with atrial myxoma and bicuspid aortic valve can vary widely, ranging from asymptomatic to severe symptoms such as heart failure, embolic events and valvular dysfunction. In this case, the patient's stroke was likely cardioembolic in origin. Treatment strategies depend on the clinical presentation, size and mobility of the myxoma and the severity of the valvular dysfunction. The choice of surgical technique and timing of intervention should be carefully considered, to optimize outcomes and minimize complications.

Conclusion

Given the rarity of the combined presence of atrial myxoma and bicuspid aortic valve, there is limited literature and clinical guidelines exist for this specific combination. Further research is necessary to elucidate the underlying mechanisms, refine diagnostic algorithms and establish evidence-based treatment approaches for this unique cardiac combination.

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