SUCCESSFUL MITRAL VALVE REPLACEMENT FOR LIBMAN-SACKS ENDOCARDITIS IN A YOUNG WOMAN WITH DEVELOPMENTAL DELAY AND RECURRENT EMBOLIC STROKE: A COMPLEX CASE SUCCESSFULLY MANAGED

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Background

Libman-Sacks Endocarditis(LSE) is a rare form of non-infectious endocarditis with a prevalence of 0.9%-1.6%

It is associated with autoimmune diseases. When coupled with embolic complications, it presents diagnostic and management challenges.

We present a case of a young female with recurrent embolic strokes, LSE, and developmental delay

Case

A 38-year-old female with developmental delay, antiphospholipid antibody syndrome, and recent pulmonary embolism maintained on apixaban, presented with slurred speech

Imaging: CT and MRI of the brain showed multiple bi-hemispheric infarcts consistent with acute embolic stroke. TEE showed a 1x2 cm mass on the posterolateral mitral valve with moderate mitral regurgitation.

Micro: Blood cultures were negative.

Hospital Course: Patient underwent successful bioprosthetic mitral valve replacement (MVR). Pathology of the valve leaflet showed fibrous tissue and fibrin thrombus, confirming LSE.

Discussion- Decision Making

The patient and family strongly preferred the least invasive treatment approach, but due to the large size of the endocardial mass and evidence of recurrent strokes, decision was made to proceed with mitral valve replacement surgery.

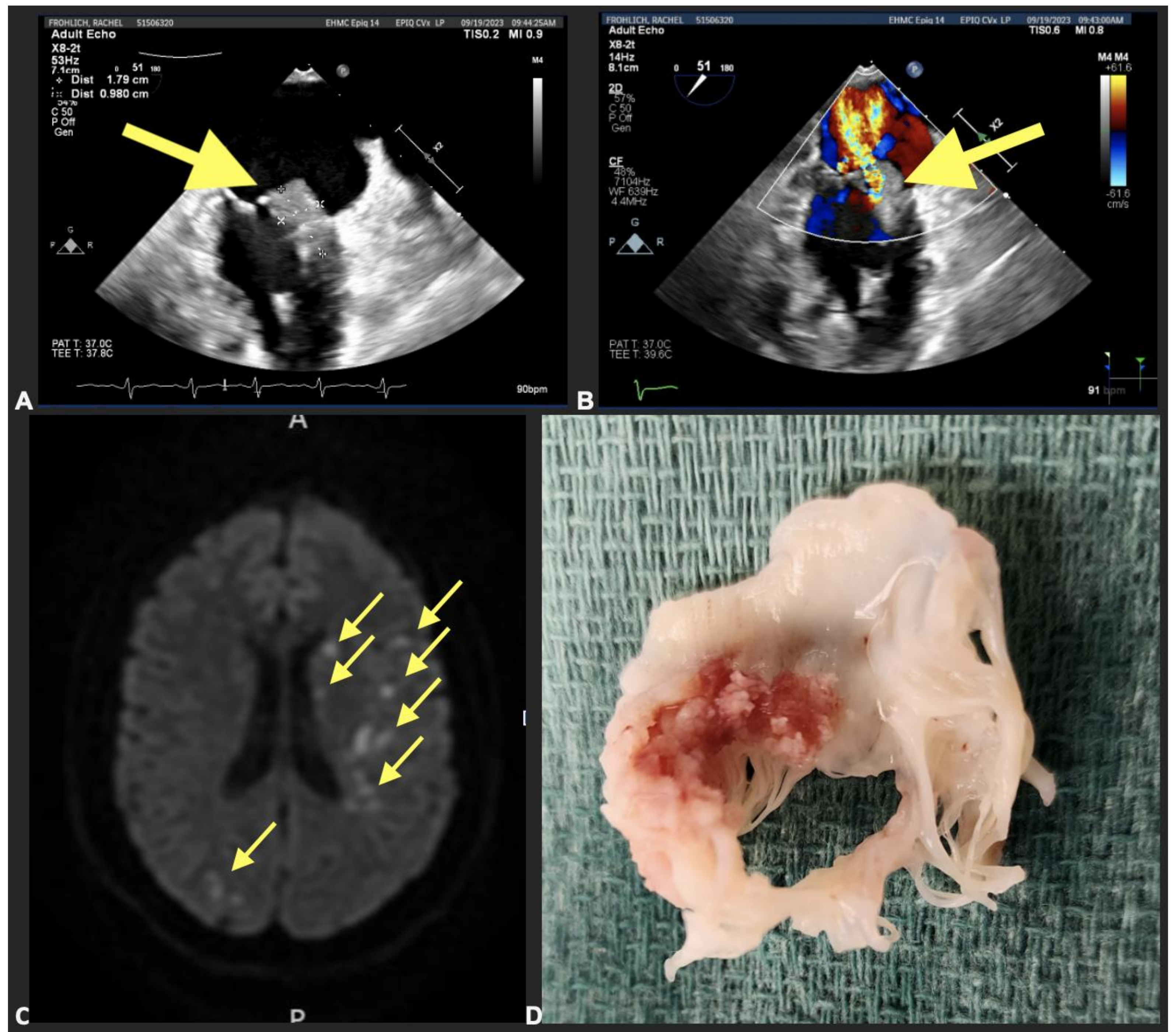

Figure A and B TEE showing a 1 cm x 2 cm mass on the atrial and ventricular side of the posterolateral mitral valve with mild to moderate mitral regurgitation
Figure C MRI brain without contrast showed a chronic left cerebellar infarct, acute left basal ganglia infarct, and multiple additional smaller bi-hemispheric infarcts
Figure D Mitral valve after mitral valve replacement surgery

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Discussion- Mechanical Versus Bioprosthetic Valve

The choice of bioprosthetic versus mechanical valve in LSE remains controversial with no clear preference for one, therefore, patient’s age, co-morbid conditions including thromboembolic and bleeding risks, patient’s life circumstances and preference all need to be taken into account.

Mechanical valve has the advantage for young patients due to its greater longevity**,** but carries a higher risk of thromboembolic events and requires strict adherence to an INR between 2.5 and 3.5. Our patient had cognitive delay with reported difficulty in obtaining INR regularly, and was sexually active, making long-term warfarin therapy less attractive.

A bioprosthetic valve would offer a less stringent requirement for maintaining therapeutic anticoagulation, even if life-long anticoagulation would still be preferred due to her high thromboembolic risk.

A multidisciplinary team from cardiothoracic surgery, cardiology, hematology, neurology, infectious diseases, and hospital medicine collaborated to provide the best possible care.

Conclusion

This case highlights the challenges managing LSE in a young patient with many comorbidities. Individualized decision-making led to a successful outcome. This case emphasizes the importance of a tailored approach in complex cardiac conditions.

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