Libman-Sacks endocarditis is a nonbacterial thrombotic endocarditis that is seen in cases of systemic lupus erythematosus. It is characterized by a spectrum of noninfectious lesions of the heart valves, most commonly involving the mitral valve. The valvular lesions associated with this disease may have been traditionally diagnosed due to chronic rheumatic valve disease and limited knowledge of the disease. However, with improved diagnostic techniques, patients presenting with Libman-Sacks endocarditis can be diagnosed and treated accurately with anticoagulation therapy and prevent embolization.

Affected patients are often asymptomatic which is why this condition went largely undetected prior to advanced medical imaging. However, cases, which become symptomatic often present with cardiac failure secondary to valvular dysfunction, most commonly mitral regurgitation. Other manifestations include cerebrovascular embolism, systemic thromboembolism, and secondary infective endocarditis.

The workup and diagnosis of Libman-Sacks endocarditis involves a multifaceted approach of both invasive and noninvasive testing. Blood cultures should be initially obtained to exclude an infective etiology. A workup for hypercoagulable state is also performed for potential antiphospholipid syndrome. The most valuable diagnostic modalities for detecting valvular lesions in a patient with suspected Libman-Sacks endocarditis are transthoracic echocardiography and transesophageal echocardiography (TEE). Libman-Sacks endocarditis may initially be suspected on transthoracic echocardiography (TTE), however TEE is more sensitive for the detection of smaller vegetations under 5 mm. 1 Early autopsy studies detailed that 35.6% of SLE patients exhibited thickened, functionally impaired cardiac valves indicative of Libman-Sacks endocarditis. 2 It has been postulated that these valves are prone to hemodynamic deterioration and with the introduction of echocardiography, these valves can be detected preoperatively preventing cardiac complications. Prior to the extensive use of these techniques, patients were not being accurately diagnosed while they were suffering from Libman-Sacks endocarditis.

Surgical interventions are deemed necessary with worsening valvular failure. Indications for surgical repair/ replacement include heart failure and acute valve rupture, however studies suggest that preventing embolization is the most common reason for elective surgery in cases of nonbacterial endocarditis. 3 The AHA/ACC guidelines detail an algorithm that may be followed when deciding between repair and replacement. 4

Conclusion

The advancement in diagnostic imaging has changed the way physicians approach Libman-Sacks endocarditis. This case outlines the importance of a thorough medical work-up using imaging techniques to narrow a differential diagnosis and target therapy and management. The patient in this case presented to clinic with very nonspecific symptoms. However with the aid of TEE and TTE, their Libman-Sacks endocarditis was detected and resolved without significant complications.

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References