



leaflet, severe commissural fusion, noncoapting leaflets edges, dilated annulus, severe calcific subvalvular agglutination with tethering to left ventricular myocardium especially of P2 along with perforation in it. Mitral valve replacement done with 33mm ATS mechanical bileaflet valve (Medtronic ATS Medical Inc.MN) was uneventful. Patient is doing well at 2 year follow up.



**Figure 2:** Left atriotomy revealing P1 and P3 segments of posterior mitral leaflet (PML) along with perforation in P2 segment and severe subvalvular agglutination (Ao: Aorta; IVC: Inferior Vena Cave; SVA: Subvalvular Apparatus).

### Discussion

In transesophageal echocardiography, unusual findings of membrane like structures in the left atrium 2 are reported in literature due to supramitral ring, cortriatrium sinister, congenitally divided left atrium and membranes at mouth of left atrial appendages. During catheter ablation for atrial fibrillation, intracardiac echocardiography gives an accurate real time imaging of pulmonary-left atrial junction for accurate ablation wherein cross sectional plane of right pulmonary veins at level of antrum are visualised through a view called “Owls

eyes” view [3]. Transthoracic view of enlarged and immobile biatria in infiltrative cardiomyopathies like amyloidosis wherein the ventricular wall, valves, interatrial septa get thickened due to amyloid deposits is also described as “Owls eyes” appearance [4,5].

Unlike such appearances of “Owls eyes” in above conditions, the view of transesophageal echocardiogram in our case of severe rheumatic mitral stenosis and regurgitation, with history of treated infective endocarditis, showed typical *Owls eyes appearance* in the left atrium due to specific valvular pathology of posterior mitral leaflet wherein P1 and P3 segments were prolapsed along with perforation and severe subvalvular agglutination at P2 segment. Identification of such unusual findings of *Owls eyes appearance* of membrane in the left atrium should raise the possibility of pathology demonstrated in this case.

### References

1. Kirkpatrick JN, Lang RM (2010) Surgical echocardiography of heart valves: a primer for the cardiovascular surgeon. *Semin Thorac Cardiovasc Surg* 22(3): 1-22.
2. Alkhulaifi AM, Altamimi O, Carr CS (2005) Left atrial membrane, left ventricular dysfunction and mitral regurgitation in an adult. *Heart* 91(6): 810.
3. Saliba W, Thomas J (2008) Intracardiac echocardiography during catheter ablation of atrial fibrillation. *Europace* 10: 42-47.
4. Srinivasan G, Joseph M, Selvanayagam JB (2013) Recent advances in imaging assessment of infiltrative cardiomyopathies. *Heart* 99(3): 204-213.
5. Dubrey SW, Hawkins PN, Falk RH (2011) Amyloid diseases of the heart: assessment, diagnosis, and referral. *Heart* 97(1): 75-84.



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