# *ECHOCARDIOGRAPHY SERVICES*

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| | **1 EDGECLIFF ESPLANADE SEAFORTH NSW 2092** | **SONOGRAPHER:** | **C Choong** |
| **DOB:** | **1/06/1936** | **ECHO NO:** | **A558/25/T** |
| **HEIGHT:** | **157 cm** | **STUDY DATE:** | **20/02/2025** |
| **WEIGHT:** | **58 Kg** | | |
| **BSA:** | **$m^2$** | | |

**CLINICAL DIAGNOSIS: HISTORY OF TAVI 2023, CHRONIC ATRIAL FIBRILLATION, VERY SEVERE SECONDARY TR. MODERATE TO SEVERE SECONDARY MR. TRICLIP SCREEN.**

## TRANSOESOPHAGEAL STUDY

### CARDIAC CHAMBERS

Left ventricular size is normal. Wall thickness is normal. There is marked septal dyssynchrony. Contraction elsewhere is normal. Ejection fraction is 55-60%. The septum is markedly flattened in systole and diastole reflecting elevated right ventricular systolic and diastolic pressures. The right ventricle is moderately dilated and mildly hypokinetic. The left atrium is markedly dilated and the right atrium is moderately dilated. There is marked spontaneous echo contrast in the left atrial chamber and appendage. No thrombus is detected.

### CARDIAC VALVES

A TAVI prosthesis (Edwards Sapiens) is present and well seated. The leaflets appear normal. Leaflet excursion is normal. There is highly trivial posterior paravalvular regurgitation. There is marked posterior mitral annular calcification extending onto the posterior leaflet. The rest of the posterior leaflet and the anterior leaflets are mildly thickened. There is mild mitral regurgitation arising centrally between A2 and P2. Peak E wave velocity is 0.7m/sec. The mean diastolic pressure gradient is 1mmHg. Valve area from planimetry cannot be obtained reliably due to atypical orientation of the valve relative to the imaging plane. No analysable signal is obtainable from the left upper pulmonary vein. In the right upper pulmonary vein, systolic forward flow is 39cm/sec and diastolic forward flow is 53cm/sec. The tricuspid is three leaflets that are structurally normal. The mid oesophageal views are poor, in part due to shadowing by the TAVI prosthesis. The low oesophageal views are fair. The transgastric views are good. There is severe secondary tricuspid regurgitation (atrial functional) arising mainly centrally between the septal and posterior leaflets with a small component between the anterior and septal leaflets. The GLIDE score is 1 (septal-lateral gap 0.5mm [clip 74] from multi planar reconstruction), predominant location postero-septal, image quality good, chordal structural density moderate, not star shaped). The pulmonary valve appears structurally normal with trivial regurgitation. No shunt is detected with colour Doppler examination. There is no pericardial effusion. There is minimal simple atheroma in the aortic arch and descending thoracic aorta measuring < 3mm in thickness.

### CONCLUSION

Atrial fibrillation. Heart rate 70bpm. Systolic blood pressure 115mmHg. Bundle branch block pattern. Normal left ventricular size. Marked septal dyssynchrony with paradoxical septal motion. Flattened septum in diastole and systole reflecting elevated right ventricular diastolic and systolic pressures. Normal contraction elsewhere. Normal ejection fraction of 55-60%. Normal wall thickness. Moderately dilated right ventricle with mild hypokinesis. Marked left atrial dilatation. Moderate right atrial dilatation. Moderate spontaneous echo contrast in the left atrium with no evidence of thrombus.

TAVI prosthesis, well seated. Normal leaflet appearance and excursion. Trivial posterior paravalvular regurgitation. Marked posterior mitral annular calcification extending onto the base of the posterior leaflet. Mildly thickened distal posterior leaflet and anterior leaflet. Mild mitral regurgitation arising centrally in the valves between A2 and P2.

Structurally normal tricuspid valves (trileaflet). Severe secondary tricuspid regurgitation arising centrally (septal-posterior) with a smaller component anteriorly (septal-anterior). Coaptation gap between the septal and posterior leaflets measured at 5mm from multiplanar imaging.

The patient was studied after optimization of heart failure therapy and was judged to be clinically, euvolaemic. In the transthoracic study of 27th November 2024, the pulmonary artery pressure was estimated at 77mmHg and if this is still present, would be prohibitive for percutaneous tricuspid valve intervention. With optimatisation of heart failure therapy, repeat right heart catherisation would be useful. The transthoracic study will be repeated on the following day, particularly to obtain repeat estimation of a pulmonary pressure and TAPSE.

**CHRISTOPHER CHOONG**

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