Royal North Shore Hospital

Health Northern Sydney Local Health District

Department of Cardiology
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Transthoracic Echocardiography (TTE) Study

Procedure date/time:	11/06/2025 2:54 PM	**Accession no:**	1949018043
Patient name:	KNEIPP John William	**Patient ID:**	2029741
Date of birth:	7/12/1950	**Age:**	74 year(s)
Height:	175 cm	**Gender:**	Male
Weight:	75 kg	**BSA:**	1.9 m²

Procedure Staff

Referring Physician: Chung Edmund Yin Man
Sonographer: Daniel Wong
Interpreting Physician: Dr Christopher Choong

Proc. sub type: TTE procedure

Indications

Troponin rise, Abnormal ECG and Syncope.
MBS Code: 55134 – TTE (for repeat, rare)

Additional Indications

Trop leak 180, ECG T waves changes, BG syncope secondary to AS

Procedure Information

HR:	81 bpm	**Source:**	Inpatient
Rhythm:	Normal sinus rhythm	**Study location:**	Treatment room
Image quality:	Adequate visualization	**Specialty:**	Cardiothoracic
Procedure consent:	Yes, verbal consent given		

Measurements

Dimensions

Sinus of Valsalva:	3.3 cm	LV Internal Dimension (end dias):	4.7 cm
Sinus of Valsalva index:	1.89 cm/m	LV Internal Dimension (end sys):	3.6 cm
Septal Thickness:	1.4 cm	RA area:	11.6 cm²
Post LV Wall Thickness:	1.4 cm	RA volume index:	12.6 ml/m²
LA area:	24.5 cm²	LA volume (BP) index:	46 ml/m²
LA volume (BP):	87.5 ml		

Aortic Valve		Mitral Valve	
AV Peak velocity:	4.5 m/s	MV Peak E-wave:	0.934 m/s
AV Peak gradient:	80.6 mmHg	MV Peak A-wave:	1.35 m/s
AV Mean gradient:	47 mmHg	Lateral E' velocity:	0.049 m/s
AV VTI:	88.3 cm	Septal E' velocity:	0.057 m/s
LVOT diameter:	2 cm	E/E' lateral:	19.06
LVOT peak velocity:	1.3 m/s	E/E' septal:	16.36
LVOT VTI:	25.2 cm	E/E' average:	17.71
AVA (Continuity):	0.9 cm²	**Tricuspid Valve**	
AVA Indexed:	0.5 cm²/m²	TR velocity:	3 m/s
SV Indexed:	41.6 ml/m²	IVC Max:	2.4 cm
Right Ventricle		IVC Min:	1.6 cm
RV s' velocity:	0.133 m/s	IVC Collapsibility index:	33.3 %
RV basal diam:	3.9 cm		
RV mid diam:	3.5 cm		

LV Ejection Fraction - Simpson

LVEDV (Biplane):	170 ml	LVESV (Biplane):	71.7 ml
LVEDVI (Biplane):	89.3 ml/m²	LVESVI (Biplane):	37.7 ml/m²
EF (Biplane):	57.8 %		

Ejection Fraction - 3D

Procedure Summary

Summary:

Sinus rhythm. 86/min.
Normal left ventricular chamber size and moderate concentric left ventricular hypertrophy. Normal left ventricular systolic function. Ejection fraction estimated at 55-60 %. Speckled myocardial appearance, consider cardiac amyloid. Grade I diastolic dysfunction.
Normal right ventricular size and systolic function.
Mildly dilated left atrium. Echodensirty seen medially in the left atrial chamber near the anterior mitral leaflet. However, visible only in the apical 4 and 2 chamber views and is not seen in other views. Artefact from the mitral valve? Flail mitral leaflet unlikely has there is no corresponding mitral regurgitation attributable to it. Old vegetation? Depending on clinical circumstances, consider TOE.
Normal right atrial size.
Trileaflet aortic valve. Severely thickened and calcified leaflets with severely reduced systolic opening, consistent with severe aortic stenosis. Peak velocity 4.5 m/s, PG/MG 81/47 mmHg, AVA 0.9 cm2. Trivial aortic regurgitation.
Mild posterior mitral annular calcification with moderately thickened mitral valve leaflets. Mild mitral regurgitation.
Structurally normal tricuspid valve. Moderate tricuspid regurgitation. Peak flow velocity 3 m/sec, predicting pulmonary artery systolic pressure of 51 mmHg, assuming a right atrial pressure 15 mmHg.

Increased IVC size with reduced inspiratory collapse.

Findings (Rest)

Left Ventricle:	Normal left ventricular chamber size and moderate concentric left ventricular hypertrophy. Normal left ventricular systolic function. Ejection fraction estimated at 55-60 %. Speckled myocardial appearance, consider cardiac amyloid. Grade I diastolic dysfunction.
Right Ventricle:	Normal right ventricular size and systolic function.
Left Atrium:	Mildly dilated left atrium. Echodensirty seen medially in the left atrial chamber near the anterior mitral leaflet. However, visible only in the apical 4 and 2 chamber views and is not seen in other views. Artefact from the mitral valve? Flail mitral leaflet unlikely has there is no corresponding mitral regurgitation attributable to it. Old vegetation? Depending on clinical circumstances, consider TOE.
Right Atrium:	Normal right atrial size.
Aortic Valve:	Trileaflet aortic valve. Severely thickened and calcified leaflets with severely reduced systolic opening, consistent with severe aortic stenosis. Peak velocity 4.5 m/s, PG/MG 81/47 mmHg, AVA 0.9 cm2. Trivial aortic regurgitation.
Aorta:	Normal aortic root 3.3 cm and ascending aorta size 3.2 cm.
Mitral Valve:	Mild posterior mitral annular calcification with moderately thickened mitral valve leaflets. Mild mitral regurgitation.
Tricuspid Valve:	Structurally normal tricuspid valve. Moderate tricuspid regurgitation. Peak flow velocity 3 m/sec, predicting pulmonary artery systolic pressure of 51 mmHg, assuming a right atrial pressure 15 mmHg.
Pulmonary Valve:	Normal pulmonary valve structure with mild pulmonary regurgitation.
Pericardium & Pleura:	No evidence of pericardial effusion.
Septa & Shunts:	No shunt detected by colour Doppler examination. No atrial septal aneurysm detected.
Additional Findings:	Increased IVC size with reduced inspiratory collapse.

Electronically signed by Dr Christopher Choong (Interpreting Physician) on 12/06/2025 at 8:48 AM