Royal North Shore Hospital

Health Northern Sydney Local Health District

Department of Cardiology
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Transthoracic Echocardiography (TTE) Study

Procedure date/time:	2/07/2025 8:20 AM	**Accession no:**	RNS-ECHO-25-3959
Patient name:	CLARK Sandra Christine	**Patient ID:**	1135610
Date of birth:	29/10/1948	**Age:**	76 year(s)
Height:	173 cm	**Gender:**	Female
Weight:	115 kg	**BSA:**	2.3 m²

Procedure Staff

Referring Physician: Bhindi Ravinay
Sonographer: Zhi-Jian Huang
Interpreting Physician: Dr Christopher Choong

Proc. sub type: TTE procedure

Indications

SOBOE, Diabetes - Type 2, Aortic stenosis and Pre-TAVI.
MBS Code: 55127 - valvular dysfunction (serial)

Procedure Information

HR:	77 bpm	**Source:**	Outpatient
Rhythm:	Normal sinus rhythm	**Study location:**	Echo lab 1
Image quality:	Adequate visualization	**Specialty:**	Cardiology
Procedure consent:	Yes, verbal consent given		

Measurements

Dimensions

Sinus of Valsalva:	3.4 cm	LA Internal Dimension:	3.9 cm
Sinus of Valsalva index:	1.99 cm/m	LV Internal Dimension (end dias):	4.3 cm
Septal Thickness:	1.1 cm	LV Internal Dimension (end sys):	2.6 cm
Post LV Wall Thickness:	0.9 cm	RA area:	13.6 cm²
LA area:	26.2 cm²	RA volume index:	11.3 ml/m²
LA volume (BP):	69.9 ml	LA volume (BP) index:	30.9 ml/m²

Aortic Valve

AV Peak velocity:	4.3 m/s
AV Peak gradient:	72.3 mmHg
AV Mean gradient:	36.3 mmHg
AV VTI:	99.2 cm
LVOT diameter:	2 cm
LVOT peak velocity:	1.4 m/s
LVOT VTI:	30.9 cm
AVA (Continuity):	1 cm²
AVA Indexed:	0.4 cm²/m²
SV Indexed:	44.6 ml/m²

Mitral Valve

MV Peak E-wave:	1.47 m/s
MV Peak A-wave:	1.76 m/s
Lateral E' velocity:	0.048 m/s
E/E' lateral:	30.69

Tricuspid Valve

TR velocity:	2.6 m/s

Right Ventricle

TAPSE:	2.3 cm
RV s' velocity:	0.124 m/s

LV Ejection Fraction - Simpson

LVEDV (Biplane):	78.8 ml	LVESV (Biplane):	33.2 ml
LVEDVI (Biplane):	34.8 ml/m²	LVESVI (Biplane):	14.7 ml/m²
EF (Biplane):	57.9 %	GLS (avg):	24.5 %

Ejection Fraction - 3D

Procedure Summary

Summary:

Sinus rhythm. 84/min.
Normal left ventricular chamber size and normal wall thickness. Normal left ventricular systolic function. Ejection fraction estimated at around 60 %. No segmental wall motion abnormality detected. Grade II diastolic dysfunction with evidence of elevated left ventricular filling pressure (lateral E/e' >14). Global longitudinal strain normal at 24% .
Normal right ventricular size and systolic function.
Mildly dilated left atrium. Normal right atrial size.
Trileaflet aortic valve. Markedly calcified leaflets with severely restricted excursion on 2D (eg clip 27) and 3 D imaging (clip 29). Doppler data as listed in table above consistent with severe stenosis based on peak velocity (even after correction for proximal velocity) and valve area index.
Marked posterior mitral annular calcification. Mild mitral regurgitation. Mean diastolic pressure gradient 6 mmHg, driven by the elevated E and A waves rather than true stenosis (elevated filling pressure). T half 84 msec.
Normal tricuspid valve structure with trivial tricuspid regurgitation.
Estimated right ventricular systolic pressure 31 mmHg (assuming a right atrial pressure of 3 mmHg)

Findings (Rest)

Left Ventricle:	Normal left ventricular chamber size and normal wall thickness. Normal left ventricular systolic function. Ejection fraction estimated at around 60 %. No segmental wall motion abnormality detected. Grade II diastolic dysfunction with evidence of elevated left ventricular filling pressure (lateral E/e' >14). Global longitudinal strain normal at 24% .
Right Ventricle:	Normal right ventricular size and systolic function.
Left Atrium:	Mildly dilated left atrium.
Right Atrium:	Normal right atrial size.
Aortic Valve:	Trileaflet aortic valve. Markedly calcified leaflets with severely restricted excursion on 2D (eg clip 27) and 3 D imaging (clip 29). Doppler data as listed in table above consistent with severe stenosis based on peak velocity (even after correction for proximal velocity) and valve area index.
Aorta:	Normal aortic root 3.4 cm and ascending aorta size 3.1 cm.
Mitral Valve:	Marked posterior mitral annular calcification. Mild mitral regurgitation. Mean diastolic pressure gradient 6 mmHg, driven by the elevated E and A waves rather than true stenosis (elevated filling pressure).
Tricuspid Valve:	Normal tricuspid valve structure with trivial tricuspid regurgitation. Estimated right ventricular systolic pressure 31 mmHg (assuming a right atrial pressure of 3 mmHg)
Pulmonary Valve:	Normal pulmonary valve structure with trivial pulmonary regurgitation.
Pericardium & Pleura:	No evidence of pericardial effusion.
Septa & Shunts:	No shunt detected by colour Doppler examination.
Additional Findings:	Normal IVC size and collapsibility.

Electronically signed by Dr Christopher Choong (Interpreting Physician) on 3/07/2025 at 1:47 PM