RADIOLOGY VICTORIA PTY LTD ABN 95 094 494 425
Radiology Victoria - Knox, WANTIRNA, VIC, 3152
Telephone : 03 9297 8300 Facsimile : 03 9297 8320

10/11/2023

DR ALEKSANDR VOSKOBOINIK
SUITE 21/183 WATTLETREE RD
MALVERN VIC 3144

RE: MR NICHOLAS BELL (14/08/1980)
26 COSHAM ST
BRIGHTON VIC 3186

Patient ID : EMI425195
Service Date : 06/11/2023
Dept :
UR No :
Episode ID : KNX1206351

EXAMINATION:
CARDIAC MRI

Clinical History:
Indication: Recent AF diagnosis. No family history of AF, cardiomyopathy or sudden death. 'Regular' endurance athlete (10 km/day, ~5-10 hr activity/week). Assess biventricular volumes and ?LGE

Height: 182 cm Weight: 82 Kg BSA: 2.04 m2

Findings:
Left Ventricle:
Upper limit normal size LV (LVEDVi 95 ml/m2) with normal wall thickness (max basal anteroseptum 11 mm). No resting segmental wall motion abnormalities. Global hypokinesis with mildly reduced ejection fraction (LVEF 51%).

Right Ventricle:
Non-dilated RV (RVEDVi 96 ml/m2) with mildly reduced ejection fraction (RVEF 49%). No regional dysfunction or focal aneurysms.

Absolute and indexed cardiac volumes with normal ranges

LVEDV	191 ml	(117-200)	95 ml/m2	(64-99)
LVESV	93 ml	(31-76)	46 ml/m2	(17-38)
LVSV	98 ml	(77-133)	49 ml/m2	(42-66)

IRD

RADIOLOGY VICTORIA PTY LTD ABN 95 094 494 425
Radiology Victoria - Knox, WANTIRNA, VIC, 3152
Telephone : 03 9297 8300 Facsimile : 03 9297 8320

LVEF	51%	(58-75)		
LV Mass	176 g	(108-185)	88 g/m2	(58-91)
RVEDV	194 ml	(116-216)	96 ml/m2	(62-108)
RVESV	98 ml	(29-89)	49 ml/m2	(16-45)
RVSV	96 ml	(73-141)	48 ml/m2	(39-71)
RVEF	49%	(52-77)		

Tissue Characterisation:
No evidence for myocardial edema on T2 weighted imaging with normal T2 times (~42 msec globally). On early gadolinium imaging, no intra-cardiac thrombus. Normal gadolinium kinetics. On late imaging, there is linear mid wall enhancement of the basal-mid septum. Further enhancement of the inferior RV-septal insertion site. No infarction. No RV enhancement.

Atria:
Normal biatrial size (indexed LA area 10 cm2/m2, RA 13 cm2/m2).

Valves:
Unrestricted trileaflet aortic valve. No significant valvular abnormalities.

Vessels:
Normal pulmonary venous connections. Normal size proximal ascending aorta and MPA.

Pericardium:
Trivial pericardial fluid. Normal pericardial thickness.

Extra Cardiac Findings:
Nil significant.

CONCLUSION:
1. Upper limit normal size LV with global hypokinesis and mildly reduced ejection fraction (LVEF 51%).
2. Non-dilated RV with mildly reduced ejection fraction (RVEF 49%). No regional dysfunction or focal aneurysms.
3. Linear mid wall enhancement of the basal-mid septum. Further enhancement of the inferior RV-septal insertion site. No infarction. No RV enhancement.

RADIOLOGY VICTORIA PTY LTD ABN 95 094 494 425
Radiology Victoria - Knox, WANTIRNA, VIC, 3152
Telephone : 03 9297 8300 Facsimile : 03 9297 8320

Early onset (<50 years) AF with mild biventricular dysfunction and septal late enhancement raises suspicion for possible underlying genetic cardiomyopathy. However, no specific etiologic diagnosis is suggested by current CMR study. Genetic testing may be considered if appropriate (Yoneda Z et al, 2021 JAMA Cardiol).

Dr Kai Leong
Cardiologist

Dr Anthony Upton
Radiologist

Dr Anver Sethwala
Cardiac Imaging Fellow
Dr Kai Leong
Cardiologist

Dr Anthony Upton
MBBS(Hons) FRANZCR

IRD