PRP Diagnostic Imaging

North Gosford
Phone 43240006

Referred By:
Dr Ravinay Bhindi
ROYAL NORTH SHORE HOSPITAL
LEVEL 4, RESERVE ROAD
ST LEONARDS NSW 2065

Mr Brian English
DOB: 16 December 1940
Patient ID: BIJ262X
Visit Number: 17342396
Service Date: 11 June 2025 10:22

Copies To:
Dr Kunwardeep Bhatia
Dr Christian Farrugia
Dr Gennadiy Brednya

Visit Description: CT TAVI AORTIC ROOT

TAVI CT ANGIOGRAM

HISTORY: Thank you for referring BRIAN ENGLISH. 84 years Male with severe aortic stenosis for transcatheter aortic valve implantation workup.

TECHNIQUE: Gated post-IV contrast single volume 320 slice CT thoracic aortogram (16 cm footprint). 0-60% of the R - R was imaged with 10% reconstructions. 30% recon was associated with the widest annular measurements and was used for reporting purposes. This was followed by a separate spiral CT aortogram with aorta iliac and femoral run-off to assess for catheter delivered vascular access.

REPORT:
Aortic annulus maximum diameter: 30 mm.
Aortic annulus minimal in diameter: 23 mm.
Aortic annulus perimeter: 84 mm.
Aortic annulus area: 5.3 cm2.
Aortic annulus and sub annular calcification: Moderate protruding at the left coronary sinus.
Aortic valve morphology including cine CT assessment: Trileaflet heavily calcified and restricted.
Aortic valve calcification: Severe.
Aortic valve Agatston score: 3365 Agatston units.

	Men	Women
Severe AS very likely	*>/=3000*	*>/=1600*
Severe AS likely	*>/=2000*	*>/=1200*
Severe AS unlikely	<1600	<800

(European Association of Cardiovascular Imaging and the American Society of Echocardiography, 2017).
Aortic sinus diameter: Left 34 mm. Right 33 mm. Non 35 mm.
Aortic sinus mean diameter: 34 mm (mean diameter <30 mm connotes an increased risk of coronary occlusion)
LMCA height: annulus to inferior os 11mm & annulus to superior os 16.5mm (considered low if <12mm).
RCA height: annulus to inferior os 20 mm & annulus to superior os 24 mm (considered low if <12mm).
Sinotubular junction diameter: 30 x 27 mm.
Sinotubular junction height: 25 mm.
Ascending aorta diameter: 33 x 30 mm (at level of pulmonary bifurcation unless otherwise stated).
Optimal fluoroscopic angulation: LAO 0 degrees CAU 8 degrees, **LAO 10 degrees** CRA 4 degrees, **LAO 30 degrees** CRA 26 degrees.
Other cardiac findings: Systolic acquisition unsuitable for formal coronary evaluation. Heavily calcified LAD. Calcific plaques also present within the remaining vessels. Membranous septum length: 9.4 mm (<8mm increased risk AV conduction injury).

CT AORTOGRAM & ILIOFEMORAL RUN OFF:
Aorta: Mild calcific plaques. No aneurysmal change. 15 mm diameter distally prior to iliac bifurcation.
Iliac minimal luminal diameter: Left 9 mm. **Right** 9 mm.
Femoral minimal luminal diameter: Left 6 mm. **Right** 6 mm.
Iliofemoral calcification: Left mild. **Right** mild.
Iliofemoral tortuosity: Left moderate. **Right** moderate.
Common femoral puncture site: Moderate protruding mixed plaque postero medially. 6 mm luminal calibre bilaterally.

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CFA bifurcations: Usual below the femoral head. **Superior acetabular to bifurcation distance** left 64 mm, right 44 mm.
Previous iliofemoral intervention: No visible.

IMPRESSION:
1. Landing zone: Moderate protruding annular calcification at the left coronary sinus. Borderline low inferior left main ostial height with satisfactory left main superior ostial height. Satisfactory RCA ostial height. Satisfactory aortic sinus diameter. CT forwarded on disc to Medtronic representative or referring specialist for review and sizing of transcatheter heart valve.
2. Common femoral access site: No adverse preprocedural CT finding for vascular access from the left or right femoral approach. 6 mm minimal luminal calibre. Mixed plaque postero medially at the femoral puncture sites.
3. Other relevant: No significant incidental findings (see separate radiology CT Aortogram with run-off report).

Reported by: Dr Uday Ahluwalia
Co Reported:
Dr Saurabh Khandelwal

CT Calcium scoring available at PRP Gosford

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Visit Description: CT ANGIOGRAM TAVI

CT ANGIOGRAM - TAVI ASSESSMENT FOR FEMORAL APPROACH

History: TAVI planning study

Technique: Arterial phase volume acquisition, with multiplanar reconstructions.

Findings:

The technical quality is excellent with all vessels visualised to the base of the heart.

The following access vessel minimum diameters have been obtained:

Site	Diameters (mm)
Ascending aorta	30
Arch	24
Descending aorta	24
Mid-abdominal aorta	17
Left common iliac artery	11
Right common iliac artery	10
Left external iliac artery	9
Right external iliac artery	9
Left common femoral artery	6
Right common femoral artery	6

OTHER FINDINGS:

Aorto-iliac tortuosity:
Mild moderately tortuous descending thoracic aorta and bilateral iliac arteries.

Notable plaques:
Bilateral common femoral arteries: Mixed calcific and noncalcific plaque noted along the posterior/medial walls with less than 50% luminal encroachment.

Right common iliac artery: Scattered calcific plaque along the posterior wall with minimal luminal encroachment.

Aortic arch branches:
Conventional three-vessel arch morphology. Calcific plaque at right brachiocephalic bifurcation with minimal luminal encroachment. Calcific plaque in distal left common carotid artery with minimal luminal encroachment. Calcific plaque in bilateral carotid bulbs with less than 50% luminal encroachment.

Mixed calcific and noncalcific plaque noted at the origin and proximal segments of left subclavian artery with less than 50% luminal encroachment.

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Major visceral branches of abdominal aorta:
Coeliac artery: Nonstenotic ostial calcific plaque.

Superior mesenteric artery: Minimally stenotic predominantly calcific plaque in the proximal segment.

Right main renal artery and right superior accessory renal artery: Mixed calcific and noncalcific plaque in the proximal segment of right main renal artery with less than 50% luminal stenosis.

Left main renal artery and left superior accessory renal artery: No plaque or stenosis.

Chest:
Few slightly prominent, up to 10 mm short axis diameter mediastinal lymph nodes are non-specific but may be long-standing. Extensive bilateral calcified pleural plaques are noted suggesting prior asbestos exposure.

No suspicious pulmonary nodule, recent consolidation, pleural or pericardial effusion.

Abdomen and Pelvis:
Uncomplicated colonic diverticular disease. Prostatomegaly.

Thoraco-lumbar spine and bony pelvis:
No destructive bone lesion. Diffuse spondylotic changes in the visualised spine.

COMMENT:
Aorto-iliac measurements are as given.

Reported by: Dr Saurabh Khandelwal
Co Reported:
Dr Uday Ahluwalia

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