

<b>Patient Name</b>	Khan Anisur Rahman		
<b>NRIC / Passport No</b>	BC0596650		
<b>Date of Birth</b>	22/09/1963	<b>Tech</b>	GVM
<b>Sex</b>	Male	<b>Case Number</b>	C0561
<b>Study date</b>	25/04/2019	<b>Clinic Number</b>	10973

**INDICATIONS** HTN; CAD

Quality of study: Rhythm: NSR BSA: m<sup>2</sup>

**Valves** Mildly thickened RCC and NCC with mild focal annular calcification.  
Normal TV, PV, MV.

**Chambers** Normal left ventricular systolic function, LVEF 65%.  
Normal RV systolic function(TAPSE 2.0cm).  
Normal chamber sizes.  
No LVH or SWMA noted.  
No clear thrombus seen.  
IAS/IVS intact.  
IVC not plethoric.

**Doppler** Normal mitral inflow pattern(E>A). Normal diastolic function.  
Trivial aortic, mitral and pulmonic regurgitation.  
Mild to moderate tricuspid regurgitation.  
PAP 33/13(+10)mmHg.

#### CONCLUSION

1. Normal left ventricular systolic function, LVEF 65%.
2. No LVH or SWMA noted.
3. Mildly thickened RCC and NCC with mild focal annular calcification.
4. Mild to moderate tricuspid regurgitation.
5. Trivial aortic, mitral and pulmonic regurgitation.



**Dr Lim Tai Tian**  
**Consultant Cardiologist & Physician**

<b>Patient Name</b>	Khan Anisur Rahman		
<b>NRIC / Passport No</b>	BC0596650		
<b>Date of Birth</b>	22/09/1963	<b>Tech</b>	GVM
<b>Sex</b>	Male	<b>Case Number</b>	C0561
<b>Study date</b>	25/04/2019	<b>Clinic Number</b>	10973

#### M-Mode findings

	Measured	Normal
RVWd		3.0cm
IVSd	1.0	0.6 - 1.1cm
LVIDd	4.9	3.7 - 5.7cm
LVPWd	0.8	0.6 - 1.1cm
IVSs	1.4	
LVIDs	3.2	2.5 - 3.5cm
LVPWs	1.2	
EF %	65	50 - 75 %
FS %	36	25 - 53 %
LV Mass(d)	153	<294g in men; <198g in women
LV Mass Index		G/m <sup>2</sup>
C.O.	4.7	5-8.5L/min
Aod	2.9	2.0 - 3.7cm
LAs	3.3	1.9 - 4.0cm
AV opening	1.8	1.5-2.6cm
EPSS		<0.5cm
TAPSE	2.0	cm
MAPSE	1.5	cm

#### 2-D Echo findings

	Measured	Normal
MV annulus	2.7	1.8 - 3.1cm
LA major	5.1	3.3 - 5.2cm
LA minor	3.4	2.5 - 4.4cm
LA Vol		mL
LA Vol Index		mL/m <sup>2</sup>
TV annulus	2.6	1.3 - 2.8cm
RA major	4.2	3.5 - 5.0cm
RA minor	4.1	
RA Area		cm <sup>2</sup>
LVOT	1.6	1.8 - 2.2cm
Sinotubular junction	2.5	2.0 - 3.7cm
Asc Aorta	3.2	
Aortic Arch		1.7 - 3.4cm
Desc Aorta		1.8 - 2.6cm
Abd Aorta		1.4 - 2.0cm
Thoracic Aorta		cm
Main PA	1.6	1.5 - 2.1cm
IVC		1.1 - 2.5cm

#### Doppler findings

		Measured	Normal	
Mitral	diastole	E	0.99	0.6 - 1.3m/sec
		A	0.92	0.4 - 0.7m/sec
		DT	187	160 - 240 msec
		IVRT	78	60 - 90 msec
		E/ A ratio	1.1	
TDI	Septal e'	0.12	m/sec	
	Septal E/e'	8		
	Lateral e'	0.15	m/sec	
Aorta	systole	peak	1.5	1.0 - 1.7m/sec
LVOT	systole	peak	1.2	<1.0m/sec
PA	systole	peak	1.0	0.6 - 0.9m/sec
RVOT	systole	peak	0.8	m/sec
Pulmonary AT			122	msec
Pulmonary	diastole	peak	0.9	m/sec
Tricuspid	systole	peak	2.4	m/sec

PATIENT NAME : KHAN ANISUR RAHMAN  
PASSPORT/NRIC : BC0596650  
DATE OF BIRTH : 22/09/1963  
REFERRING PHYSICIAN : DR LIM TAI TIAN  
DATE OF SERVICE : 25/04/2019  
ACCESSION NUMBER : 10079548  
STUDY PERFORMED : CT CORONARY ANGIOGRAM (WITH CALCIUM)

## HISTORY

Previous PCI.

## REPORT

Technique: Siemens Definition Flash Dual Source CT. Dual source scan mode with a tube voltage of 120 kV.

Injection protocol: 65 ml of Omnipaque 350 non-ionic contrast was injected at a flow rate of 5.5 ml/s. 50 mg of oral Metoprolol and 0.5 mg of sublingual GTN was given.

### Calcium Score

The non stented coronary artery segments were scored as requested. Please see the attached calcium score sheet.

Coronary CTA (Key: Mild stenosis 0-40%, Moderate stenosis 40-70%, Severe stenosis >70%).

A right dominant circulation is present. There are no significant anatomical anomalies.

LM: This vessel divides into the LAD, LCX and a tiny RI branch. It is free from significant disease.

LAD: Note that stent markers from a self absorbing stent (if present) are difficult to distinguish from the coronary artery calcifications. Scattered foci of calcified and dense concentric foci of calcified plaque are seen along proximal third of the LAD, estimated to be causing mild to moderate narrowing. Calcified plaque along the middle third of the LAD results in mild narrowing. The distal third of the LAD and the diagonal branches are unremarkable.

LCX: Stent markers from a self absorbing stent are noted along the proximal to mid circumflex artery. Mild luminal narrowing is seen along the proximal circumflex artery, which becomes more moderate (probably not exceeding 40-50% diameter reduction) along the mid circumflex artery (after the first OM branch). The terminal OM branch contains some calcified plaque with mild narrowing.

RCA: The proximal RCA segment remains free from significant disease. Stent markers are seen position between the mid and distal RCA. There is some mild narrowing between the stent markers as well as along the distal RCA. The PDA and PL branches are unremarkable.

### EXTRA-CORONARY FINDINGS

The visualized LV myocardium is normal in thickness, with no focal areas of thinning or scarring. There is a 1.0 cm simple cyst between segments 4A and 2 of the liver. The partially visualized thorax and upper abdomen are otherwise unremarkable.

### CONCLUSION

Patient Name: KHAN ANISUR RAHMAN

25/04/2019 11:54



PARAGON ORCHARD, 290 Orchard Road #07-18 to 20 (Lobby C) Paragon Singapore 238859.  
T.(65) 6235 3230  
NOVENA MEDICAL CENTER, 10 Sinaran Drive #08-02 to 04 Novena Medical Center Singapore 307506.  
T.(65) 6817 9620  
E. contact@lifescanimaging.sg W. www.lifescanimaging.sg

PATIENT NAME : KHAN ANISUR RAHMAN  
PASSPORT/NRIC : BC0596650  
DATE OF BIRTH : 22/09/1963  
REFERRING PHYSICIAN : DR LIM TAI TIAN  
DATE OF SERVICE : 25/04/2019  
ACCESSION NUMBER : 10079548  
STUDY PERFORMED : CT CORONARY ANGIOGRAM (WITH CALCIUM)

Stent markers are noted along the circumflex artery and RCA. These may also be present along the LAD but cannot be confidently separated from abundant calcifications in this vessel.

Mild to moderate narrowing is estimated to be present along the proximal third of the LAD, with milder narrowing along the middle third of the LAD. The distal third of the LAD appears free from significant disease.

Mild narrowing is seen along the proximal circumflex artery, becoming more moderate along the mid circumflex artery.

Mild areas of luminal narrowing are seen along the mid and distal RCA.

There is a 1.0 cm simple cyst between segments 4A and 2 of the liver.

Please correlate clinically and consider further management as appropriate.

Interpreted and electronically signed by - Dr. John Huang, MBCHB(Glasgow), MRCP(UK),FRCR(UK)  
at 25/04/2019 11:54

<b>Patient Name</b>	KHAN ANISUR RAHMAN		
<b>Patient ID</b>	BC0596650		
<b>Date of Birth</b>	22-Sep-1963 (55 years)		
<b>Gender</b>	MALE		
<b>Series:</b>	DS_CaScSeq 3.0 B35f 65%	<b>Series No.:</b>	2
<b>Study:</b>	CT CORONARY ANGIOGRAM (WITH CALC		<b>Study Date:</b> 25-Apr-2019
<b>Referring Physician:</b>	DR LIM TAI TIAN	<b>Reading Physician:</b>	Dr John Huang

### Report

High resolution, ECG synchronized Computed Tomography of the heart with attention to the coronary arteries was performed using Siemens HeartView CT. Coronary calcification was analyzed using Siemens calcium scoring software. These are the results of the evaluation:

Artery	Number of Lesions	Volume [mm <sup>3</sup> ]	Equiv. Mass *) [mg CaHA]	Calcium Score
LM	0	0.0	0.00	0.0
LAD	5	218.4	51.01	271.6
CX	0	0.0	0.00	0.0
RCA	0	0.0	0.00	0.0
<b>Total</b>	<b>5</b>	<b>218.4</b>	<b>51.01</b>	<b>271.6</b>

Threshold: 130HU (96.6 mg/cm<sup>3</sup> CaHA)  
 \*) Calibration factor: 0.743 mg/(HU·cm<sup>3</sup>) CaHA

The Computed Tomography of the coronary arteries detected coronary calcifications. According to the current state of knowledge [1], coronary calcifications are a marker for coronary atherosclerosis. The more calcium is detected, the higher is the likelihood for an obstructive coronary disease. However there is no unique relationship between the amount of detected calcium and the extent or localisation of this disease. The amount of calcium is closely correlated with the extent of coronary atherosclerosis, although the true "plaque burden" is underestimated. With a high amount of coronary calcium, a moderate to high risk of a cardiovascular event within the next 2 to 5 years can be assumed.

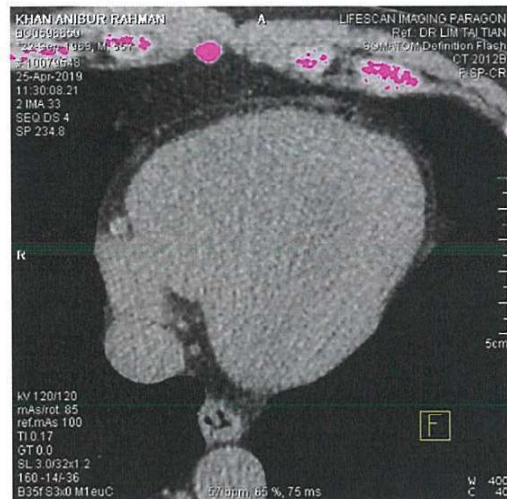
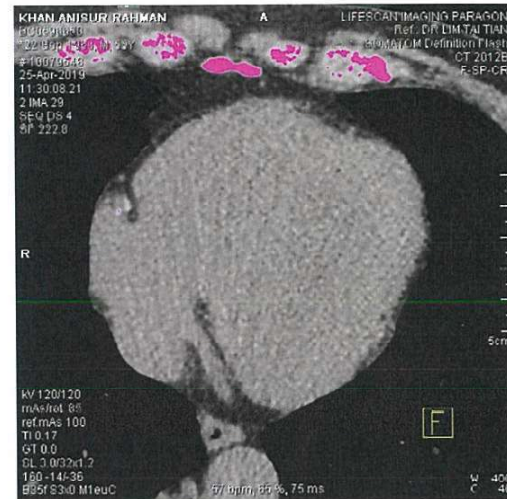
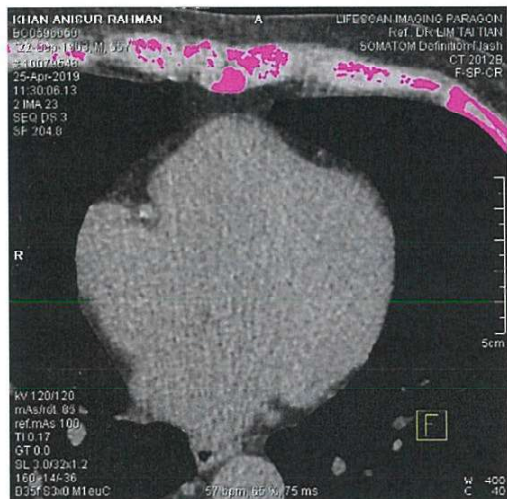
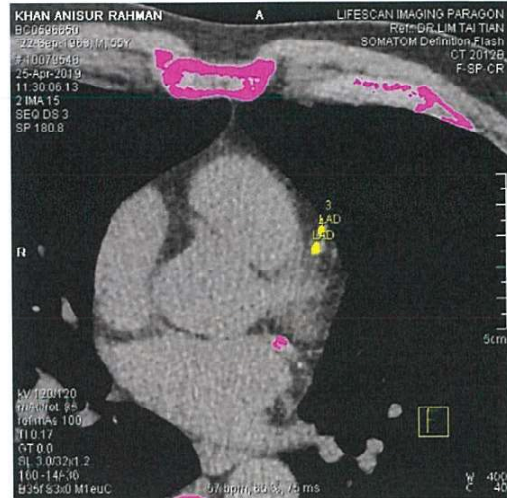
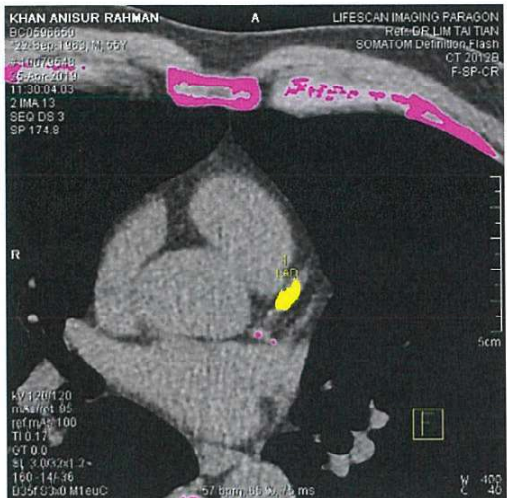
### Reference Norms of Calcium Score

No Identifiable Calcification	Minimal Identifiable Calcification	Mild Calcification	Moderate Calcification	Significant Calcification
0	1-10	11-100	101-400	401 and above

(Following Mayo Clin Proc. 1999;74(3):243-252)

### Appendix: Illustrative Images

Due to reproduction, image quality in this report may not be suitable for diagnosis.



### Appendix: Additional Notes

For more information visit also  
<http://www.chd-taskforce.com>  
<http://www.americanheart.org>

<http://www.nhlbi.nih.gov>

### Appendix: References

[1] O'Rourke, Circulation 2000; 102:126)

[2] International Task Force for Prevention of Coronary Heart Disease, Pocket Guide to Prevention of Coronary Heart Disease, Börm Bruckmeier Verlag GmbH, 2003

Also available for download at <http://www.chd-taskforce.com>

[3] Arzneimittelkommission der deutschen Ärzteschaft: Arterielle Hypertonie, 2. Auflage Arzneiverordnung in der Praxis, 2004

[4] International Consortium on Standardization in Cardiac CT, <https://clinapps.bio.ri.ccf.org/cascore/>