General Report #1059098: Amended by Dr Wonder Woman () at 03/03/2019 10:55

Date Serviced: 01/03/2019 10:37

Requests: 19/RA/0004792 (Series 5; Requested by:; Work Site: RA)

Services: CT Coronary Angiogram (NR) (01/03/2019 10:00 -01/03/2019 10:10)

EXAM: CT CORONARY ANGIOGRAM AND CALCIUM SCORE

CLINICAL DETAILS:

Risk evaluation. Risk factors for coronary artery disease: - Hyperlipidaemia.

TECHNICAL PARAMETERS:

Single phase CT coronary angiography was performed using prospective ECG gating at 120 kVp. The total radiation dose (DLP) including scout, non contrast and contrast acquisitions was 270 mGycm⁻¹. Medication administered in the department: 100 mg oral metoprolol. 800 mcg nitrates. Intravenous iodine contrast volume: 100 mL. Data acquisition was at an average heart rate of 54 bpm. Image quality was good .

FINDINGS:

CORONARY ARTERIES

Calcium score

The calcium score is 428. Distribution of calcium:- LMCA, LAD, LCx, RCA This score is consistent with high coronary artery atherosclerotic plaque burden. On a population basis, this score places the patient in the 96th percentile rank for age, race and gender according to the MESA cohort.

Dominance

The circulation is right dominant.

Left main coronary artery

The LMCA arises from the left coronary sinus of Valsalva in the usual position. It divides into left anterior descending and circumflex vessels. It contains mixed plaque distally associated with 25-49% stenosis.

Left anterior descending artery

The LAD is a medium calibre artery and gives rise to 2 main diagonal branches. There is diffuse mixed plaque in the proximal segment associated with 50-69% stenosis. There is further multifocal mixed plaque plaque in the mid vessel associated with 50-69% stenosis. The first diagonal branch is a medium calibre vessel and exhibits focal non-calcified plaque at its ostium causing 25-49% stenosis.

Circumflex artery

Focal non-calcified plaque is seen at the ostium of the circumflex associated with <25% stenosis. There is additional multifocal mixed plaque in the major OM branch associated with maximal stenosis of 25-49%.

Right coronary artery

The RCA is a large calibre vessel which arises from the right coronary sinus of Valsalva in the usual position and gives rise to posterior descending and posterolateral branches. Focal calcified and non calcified plaques are seen in the mid vessel associated with <25% stenosis. No further atherosclerotic changes are detected within the main vessel or distal branches.

ADDITIONAL CARDIAC FINDINGS

There is focal calcification in the aortic root. The cardiac chambers, myocardium, pericardium and scanned segments of the thoracic aorta otherwise appear normal.

OTHER FINDINGS

The lungs appear clear.

CONCLUSION:

The epicardial coronary arteries exhibit diffuse atherosclerotic changes involving the LMCA and all three major vessels . There appears to be borderline significant stenoses of 50-69% in the proximal and mid LAD .

There are no additional cardiac findings of relevance within the scanned segments.

Cardiology assessment and functional testing is advised.

Thank you for referring this patient.

Primary Read of Cardiac Findings by: Dr James Bond1

Co-read of Cardiac and Non-Cardiac Findings by: Dr Wonder Woman