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Anatomy in Cardiac CT
Coronary Arteries
Cardiologist's view

LAD LAO 50
Cardiologist`s view

- 2-dimensional views
- Luminography, not the vessel wall itself
- Usually use of dedicated projections (LAO, RAO,...)
2D curve reformating
2D curve reformating

LM and LAD
2D curve reformating

LCX
MIP

RCA

LAD
Multi PLANAR REFORMATION
• 3-dimensional reconstructions are possible
• whole vessel wall itself is displayed
• every thinkable projection is possible
Above the level of the Heart

PLANAR REFORMATION
Coronary Arteries – LAO Cranial View

- Left Main
- LAD
- Diagonal
- Circumflex (LCx)
- Cardiac Vein
Left Main and Proximal LAD
LAD & LCx - Mid Level of the Heart
Origin and Proximal RCA
Heart – Caudal View

- RCA
- Posterior Descending (PDA)
- Posterior Lateral (PLA)
- Coronary Sinus
LAD – RAO Projection

Viewing Point

Thin-slab MIP image of the LAD in the long axis
Thin-slab MIP image of the LCA in the Oblique Axial plane.
Inflow and Outflow Tract View of the LV
Left Ventricle with Aortic Valve
Right Ventricles Outflow Tracts
Cine MR Aortic Valve Assessment
1) TEST
3) TEST
4) TEST
5) TEST
1) What describes best the RCA visualized?

a) Normal RCA
b) RCA with non-calcified plaques but no significant stenoses
c) Normal RCA with some artifacts
d) Enhancing Tumor in the RV
e) A +D

Answer c
2) Patient admitted to the ED with arrhythmias, hypotension, no CP. What pathology is seen – Best Diagnosis?

a) Proximal RCA atherothrombotic disease.
b) Thrombosed proximal RCA with coronary calcifications.
c) RCA occlusion with silent infarction suggested
d) Proximal RCA thrombus, chronic subtotal occlusion, coronary artery calcification, retrograde collateral filling
e) A + C

Answer d
3) Patient with +CP on ICU, S/P PCI three hours ago, S/P ACS. What Pathology is visualized – Best Diagnosis?

a) Severe RCA atherosclerotic coronary artery disease, no significant stenosis
b) Severe RCA atherosclerotic coronary artery disease, non-calcified plaque present, distal significant stenosis
c) Complete RCA dissection post PCI
d) Acute re-stenosis of the distal RCA
e) C + D

Answer c
4) What vessel is indicated by the arrow?

a) LCX  
b) Obtuse marginal branch  
c) A+B  
d) Small LCX  
e) Small LAD  

Answer d
5) What best describes the coronary artery visualized?

a) Proximal RCA
b) Proximal LAD with stenosis
c) Left main coronary artery, non-calcified plaque
d) Left main coronary artery, non-calcified plaque, significant stenosis
e) LCx coronary artery, non-calcified plaque, significant stenosis

Answer: d
6) Patient with FUO, + endocarditis, chest pain. What best describes the clinical findings and contrast enhanced anatomic structures?

a) LCX, RCA, Ao valve, mitral valve, LV  
b) LAD, RCA, Ao valve, mitral valve, LA, LV  
c) Ao valve abscess, desc. Ao, LAD, RCA, MV, LA, LV, LA appendage  
d) Ao valve abscess, desc. Ao, LAD, RCA, MV, LA, LV, LA appendage, thoracic vertebra fracture  
e) LAD, RCA, Ao valve, mitral valve, LA, LV, Desc. Ao, LA appendage

Answer: c
7) What coronary arteries are supported by grafts?

a) RCA and LAD
b) LAD and LCX
c) RCA, LAD, LCX
d) RCA, PDA and LCX
e) LCX and LAD

Answer: d