

CORONARY ARTERY DISEASE: BENDING THE CURVE BY CHANGING ATHEROSCLEROTIC DISEASE

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PRESENTING HISTORY

56-year-old male with past medical history significant for heterozygous familial hypercholesterolemia, coronary artery disease status post myocardial infarction with stents to his left anterior descending artery, right coronary artery, and posterior descending artery, elevated lipoprotein a, statin intolerance and insulin dependent diabetes who presented for lipid apheresis consultation.

PAST MEDICAL HISTORY

- In 2022 patient was on a cruise when he felt chest pain that subsided after several hours. He did not seek medical attention immediately
- Upon return, EKG has new changes that led to cardiac catheterization that led to 3 stent placement (LAD, RCA, PDA)
- He previously tried multiple statins in the past atorvastatin, rosuvastatin, simvastatin and pravastatin all of which were associated with memory loss, muscle aches and elevated liver function tests, all of which resolved on discontinuing medication.

Family History

- Mother: Coronary artery disease s/p coronary artery bypass grafting in her 70s ; aortic stenosis, hypertension, hyperlipidemia
- Father: Mild hypertension

Social History

- Physician
- Non-smoker
- Social drinker

Medications

- Metoprolol tartrate 12.5mg twice daily
- Aspirin 81mg daily
- Ticagrelor 45mg twice daily
- Alirocumab 150mg subcutaneously every 2 weeks

Significant laboratory work up

- Total Cholesterol 111mg/dL
- LDL 40mg/dL
- HLD 48mg/dL
- Triglyceride 132 mg/dL
- High Sensitivity CRP 0.83mg/L
- Lipoprotein a 204.6nmol/L
- Apolipoprotein B 50mg/dL

QUESTION

What is the most appropriate next step in the evaluation?

- a. Nuclear stress testing
- b. Cardiac coronary CT
- c. Left heart catheterization
- d. Stress echocardiogram

Left Heart Catheterization

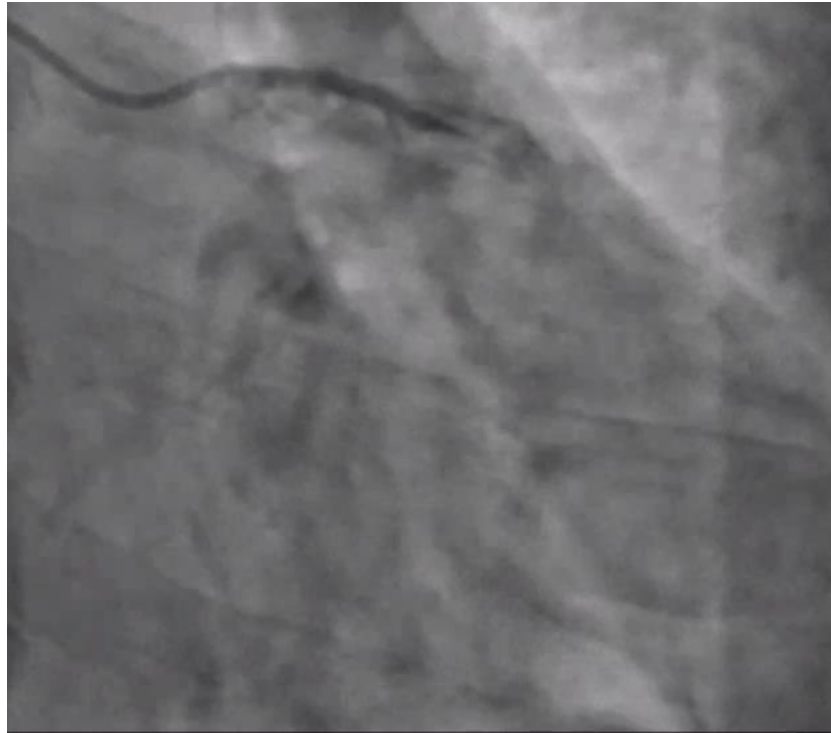


RCA



LAD

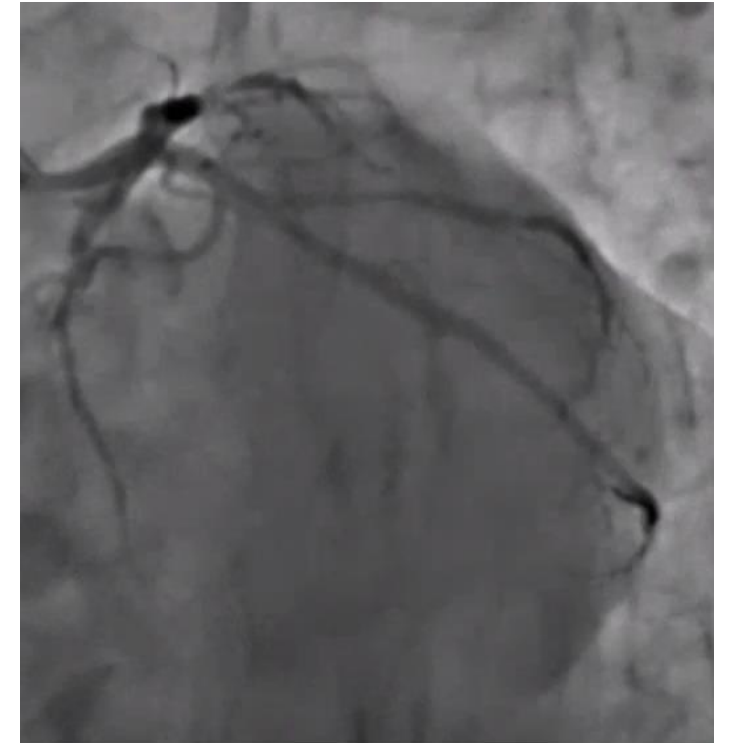
Left Heart Catheterization cont



LCx: RAO Caudal view



LCx: LAO Cranial view



LCx: RAO Caudal view post PCI

QUESTION

What test would be most helpful to identify this mechanism of disease?

- a. Platelet Function Testing
- b. Lipoprotein (a) level
- c. VerifyNow P2Y₁₂ Testing
- d. Apolipoprotein B level



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