

# Management challenges in hyperlipidemia

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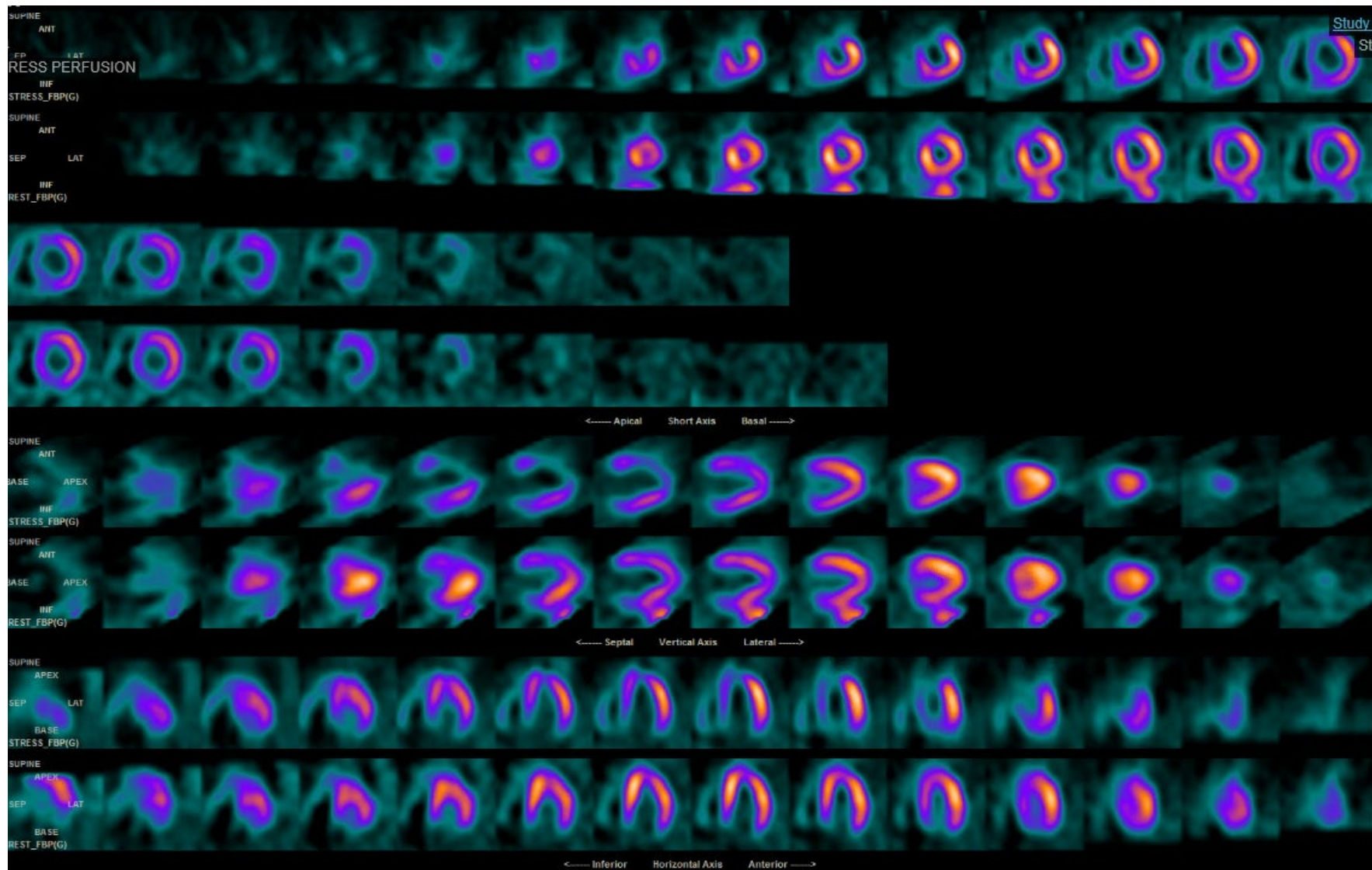
## Case 2

- 50 yo man with no medical history presents with typical angina
  - Chest tightness after walking one 15-minute mile
- Walks 2-3 miles, 2-3x/week
- Non-smoker, 0-3 alcoholic drinks/week
  
- PMH: knee arthritis
- Meds: B vitamins, prn ibuprofen

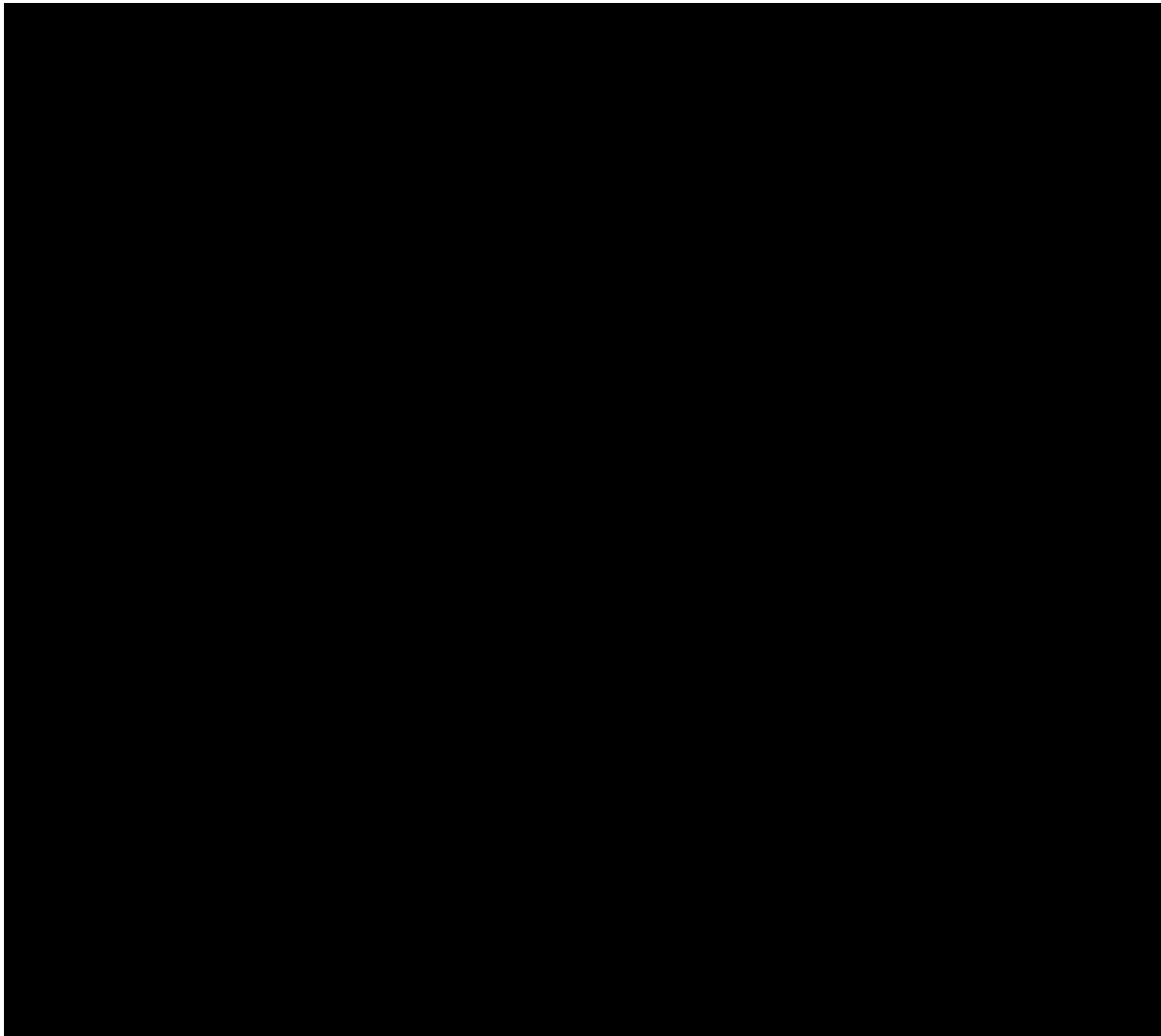
# Family history

- Paternal grandfather: died of an MI at age 65, had multiple MIs prior
- Father: CABG at age 53 with multiple PCI procedures post-CABG
- Brother: CABG at age 48
- Sister: CABG at age 56
- Brother: CAD, first PCI in his 40s

# Myocardial perfusion scan



# Angiogram



# Revascularization

- 3-vessel disease with 100% occlusion of LAD
- CABG was recommended, but the patient preferred a less invasive approach and ultimately underwent multivessel PCI

# Labs

	Ref Range	4/15/16	9/28/18	1/9/19	6/17/19	10/10/19
Cholesterol (total)	<200 mg/dL	214	174	179	158	92
Cholesterol (LDL)	<150 mg/dL	134	112	105	74	23
Cholesterol (HDL)	<130 mg/dL	58	33	55	69	57
Lipoprotein (a)		250			305	



Pravastatin 20 mg daily  
 Rosuvastatin 10 mg daily  
 Evolocumab 140 mg  
 Rosuvastatin 10 mg weeks

# Secondary prevention in a very high risk patient

- Premature ASCVD with extensive family history and severely elevated Lp(a)
- Maximum tolerated statin therapy
- Add ezetimibe
- Consider adding a PCSK-9 inhibitor if additional lipid lowering is needed



# Acknowledgements

- Dr. Savitha Subramanian, HMC Lipid Clinic

# Case 1

- 58 yo woman with hypercholesterolemia presents to establish care
- No cardiovascular symptoms
- Walks 60 minutes/day, never-smoker, non-drinker
  
- PMH: Low back pain
- Meds: atorvastatin 40 mg daily, ibuprofen prn

# Family history

- Mother: HLD and CAD, died of MI at age 67
- Maternal aunt: CAD, died of MI at age 58
- Sister and multiple other family members with HLD

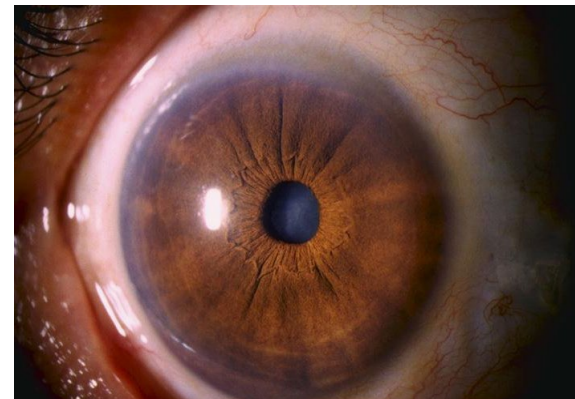
# Physical exam

- BP 138/81, HR 74, BMI 24
- EOMI, full arcus senilis bilaterally
- Bilateral xanthelasmas
- Thickened Achilles tendon bilaterally, L>R

Xanthelasmas



Arcus senilis



# Labs

	Ref Range	7/15/14	1/16/15	7/28/15	10/13/15
Cholesterol (total)	<200 mg/dL	413	364	264	251
Cholesterol (LDL)	<150 mg/dL	333	287	199	188
Cholesterol (HDL)	<130 mg/dL	66	55	45	48
Triglyceride	>39 mg/dL	72	111	102	75



Simvastatin 20 mg    Atorvastatin 40 mg    Atorvastatin 80 mg

# Labs

	Ref Range	10/13/15	1/26/16	1/17/17	
Cholesterol (total)	<200 mg/dL	251	201	135	
Cholesterol (LDL)	<150 mg/dL	188	137	68	
Cholesterol (HDL)	<130 mg/dL	48	47	53	
Triglyceride	>39 mg/dL	75	86	72	



Ezetimibe 10 mg  
 Atorvastatin 80 mg  
 Evolumab 140 mg  
 q2 weeks

# Primary prevention for severe hypercholesterolemia

- Presumed heterozygous FH
- Goal LDL-C < 100 mg/dL
- Maximum tolerated statin therapy
- Add ezetimibe
- Consider adding a PCSK-9 inhibitor if additional LDL lowering is needed