

# Case Study : Prevention

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Khaula Khalid D.O.  
Newark Beth Israel Medical Center  
Cardiovascular Symposium  
September 12, 2009

## ■ Chief Complaint

- Pt states since her diagnosis of hypothyroidism 2 years ago, she has developed progressive worsening of shortness of breath.

## ■ Medical History

- 49 y.o. female with PMHx HTN, DM, Hypothyroidism, Hyperlipidemia, Depression, and Obesity presents with complaint of shortness of breath and fatigue. Denies any chest pain.

## ■ Medications

- Synthroid 100mcg Daily
- Cytomel 5 mcg BID
- HRT (estrogen and testosterone combination)
- Effexor 75 mg Daily
- Os-Cal
- Vitamins
- Aspirin 81 mg Daily

## ■ Family History

- Mother: died at age 68 from an MI
- Father: 71 CAD s/p PTCA, DM
- Brother: 51 CAD s/p PTCA, s/p CEA

## ■ Physical Exam

- **Vitals:** ***BP***180/110 ***HR*** 78 ***RR*** 16  
***O<sub>2</sub> sat*** (room air) 97% ***Wt*** 225 lbs
- **Neck:** No JVD
- **Lungs:** CTA b/l, No w/r/r
- **Heart:** S1, S2 rrr, No m/r/g
- **Extremities:** 1+ edema b/l, 2+pulses b/l

## Baseline

**Labs :**

### Lipid Profile

Total Cholesterol	212 <sub>mg/dl</sub>
HDL	62 <sub>mg/dl</sub>
LDL	113 <sub>mg/dl</sub>
Triglycerides	183 <sub>mg/dl</sub>

### SMA-7

Sodium	136 <sub>mmol/L</sub>
Potassium	4.0 <sub>mmol/L</sub>
Chloride	101 <sub>mmol/L</sub>
BUN	7.0 <sub>mg/dl</sub>
Creatinine	1.0 <sub>mg/dl</sub>
Glucose	139 <sub>mg/dl</sub>

# CT Angiography

## ■ Coronary calcium scoring

- Calcified mid LAD. AJ-130 = 110 and volume 130 = 83 which corresponds to *moderate plaque burden* and *high CVD risk* (90 percentile rank).

## ■ Coronary Arteries

- RCA : Normal
- Left main : Normal
- Circumflex : Normal
- **LAD** : Dense calcification without definite stenosis of the mid LAD.

# Stress Echocardiography

To assess the physiological significance of the LAD lesion

- Average exercise capacity
  - 8 minutes of Bruce protocol
- Maximal symptom limited exercise stress echocardiogram without evidence of ischemia.
- Normal Heart rate and Blood pressure response to stress.
- Normal responses of enhanced wall motion with stress. LV EF=80%

# Myocardial Perfusion Scans

Both non-invasive studies were consistent  
w/ one another

- Completed 9 minutes of Bruce protocol
- No chest pain or discomfort during exercise
- Ischemic criteria of 1-2mv horizontal ST depression were met during exercise
- Blood pressure response was normal
- Perfusion scans are consistent with ***normal*** myocardial perfusion scans

- Pt started on : Lisinopril 10 mg Daily  
Pravachol 40mg Daily
- Pt enrolled in nutritional weight loss program
- Pt enrolled in a 3 month Cardiac Rehab program

## Lipid Profile

Total Chol mg/dl	212	173	160	153	<b>140</b>
HDL mg/dl	62	58	54	52	<b>58</b>
LDL mg/dl	113	90	85	81	<b>58</b>
Trig mg/dl	183	139	103	101	<b>122</b>