Medical Management of Coronary Artery Disease

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Disclosures

- I have no disclosures or conflicts to report
What does CAD look like?

- Acute events: STEMI, Unstable Angina
  - PCI, Stents, Hospitalization
  - Dual antiplatelet therapy
  - IABP, Impella
  - CABG
What does CAD look like?

- Chronic
  - Symptoms: angina, dyspnea, fatigue
  - Triggers: exertion, eating
  - Enablers: BP, lung disease, anemia, catecholamines
  - Confounders: obesity, sedentary lifestyle
  - Timing: exertional, non-exertional; frequency
Approach to Therapy

What are we treating?
- Myocardial oxygen supply and demand factors: BP, HR, weight, activity

Has anything changed?
- Home, work, travel
Medical Therapy

- Beta Blockers
  - Metoprolol, Carvedilol, Atenolol, Propranolol
  - Adjust based on BP, HR, LVEF
  - Other medical needs: migraine, tremor, kidney disease
Medical Therapy

- ACEI and ARB
- No incremental benefit of ARB over ACEI
- Tailoring: kidney disease
Medical Therapy

- Antiplatelet therapy: Aspirin 81mg; no benefit to chronic dose of 325mg; Patients on Ticagrelor

- Statin therapy: High Potency – Atorvastatin, Rosuvastatin

- PCSK9 inhibitors: statin intolerant or non-responsive
Medical Therapy

Nitrates: only for symptoms; may be useful in some patients, prior to established trigger for angina
CCB

- No evidence of benefit, except for symptoms and as add-on.
- Contraindicated in CHF, reduced LVEF (Diltiazem, Verapamil)
Patient AA

- He is 75 yo. BMI 25, BP 110/70. Atorvastatin 80mg, Nebivolol 2.5mg, Lisinopril 2.5mg, Aspirin 81mg. LDL 75.

- He reports angina at a half mile walk. Walks daily, about 2-3 miles. He had 3 vessel CABG 10 years ago; LIMA was not suitable for grafting. Subsequent cardiac cath, for symptoms, showed diffuse graft disease and native disease. No targets for revascularization.
Patient AA continued

What next:
- Lower LDL
- Increase beta blockade
- Nitrates
Patient TS

- 65 yo woman. CAD: previous PCI/stent to LAD. LVEF 60%. DM, HTN, HLD, Sedentary, BMI 38, BP 130/80
- Recurrent chest pain on minimal exertion and sometimes after meals. Better with nitrates.
- Multiple ED visits and admits.
- Negative stress tests.
- Cardiac catheterization – no obstruction
Patient BT

70 yo man with recurrent exertional chest pain, HTN, HLD

Echo: LVEF 45%

Beta blocker, ACEI, Aspirin

Despite maximum tolerated medications continued to have frequent angina

Cardiac catheterization: proximal 3 vessel CAD
Patient BT continued

- CABG recommended. Patient declined.
- Later developed atrial fibrillation. Medications modified.
- Lived > 5 years post cardiac catheterization.
Stress testing

- Exercise is better than pharmacologic if possible
- Patients with LBBB or pacing: no treadmill if looking for ischemia.
Conclusions:

- Medical therapy: beta blockers, ACEI/ARB, Antiplatelet agents, anti-lipidemic therapy
- Nitrates for symptoms
- Treat co-disease states: DM, obesity, sedentary status
- CAD is a chronic process
- A cardiac catheterization is not for everyone
- Many patients will do well on OMT alone (ISCHEMIA trial)