Case Presentation: Mr. E.M.

Dr. Braun
Case Presentation: Mr. E.M.

- 66 years old; PMHx CAD with stent 2010; carotid artery disease with stent 1999; aortic stenosis; CVA 1998; type 2 DM; colon cancer with resection 2011
- Retired teamster
- Lives with wife and 2 dogs; wife has MS
- Rarely drinks ETOH; smokes 1.5 ppd since teenage years
- Height: 5’10”; weight 208 lbs; BMI 29.8 kg/m2
- BP 144/62 mmHg, HR 64/min
Case continued

- Patient takes usual secondary prevention medications:
  - ASA 81 mg
  - Simvastatin 40 mg
  - Clopidogrel 75 mg
  - Losartan HCTZ 50-12.5 mg
  - Metoprolol XL 25 mg
  - Amlodipine 5 mg
  - Metformin 1,000 mg bid
  - Omeprazole) Prilosec OTC
- Lipid panel: TC 156, TG 209, HDL 47, LDL 67 mg/dL
- Hemoglobin A1C 6.3%
Case continued: Lifestyle

- Reports eating “only organic” foods
- Physical activity: walks dogs twice a day; swims in backyard pool during the summer
- Expresses that he is NOT interested in quitting smoking
  - Providers have related his progressive CVD to smoking
  - When addressing the effects of secondhand smoke on his wife, he responded, “Then she shouldn’t have married me!”
• The patient reports that he is fatigued from this Chicago winter. He uses a snow blower however he also uses a shovel. Lately when its subzero, he feels more short of breath walking his dogs. He has felt some indigestion when shoveling snow. He started to double Prilosec OTC however the indigestion goes away in several minutes after he stops shoveling snow. He isn’t sure if he has arm pain as well because his left arm gets sore from shoveling snow. Denies palpitations, lightheadedness, syncope, and claudication.
Case continued

• Recent stress test:
  – 1. This test result is ABNORMAL. The rest/pharmacologic stress myocardial perfusion images demonstrate stress-induced perfusion abnormalities consistent with hemodynamically-significant coronary stenosis in the expected distribution of the right coronary artery
  – 2. There has been progression since 11/7/2011.
  – 3. Left ventricular systolic function is normal.
Case continued: angiogram

- **HEMODYNAMICS**: Hemodynamic assessment demonstrated moderate to severe systemic hypertension.
  - **CARDIAC STRUCTURES**: No LV gram was performed; however, a recent echocardiogram demonstrated an EF of 60%.
  - **CORONARY CIRCULATION**: There was mild left main disease (20% stenosis). There was severe 2-vessel coronary artery disease (circumflex and RCA). Mid left circumflex is totally occluded and a small distal vessel filled via collaterals. There was an 80% occlusion in the mid RCA.

- A previously placed stent in a large Ramus branch was patent. Successful angioplasty and implantation of a DES was performed on the 80% lesion in the RCA.
Discussion Questions

• This is a gentleman with progressive CAD and multiple risk factors.
• Would you improve/alter risk factor management?
• Is this a case of clopidogrel resistance/hyporesponsiveness?
• Would you change his dual antiplatelet therapy?
Case Study Mr. JT

Dr. Sikkema
Case Study Mr. JT

• JZ, a 60 year old divorced gentleman who presents to your office after being told he had elevated blood pressure at a worksite screening and his BP today is 150/94. He has not received any routine medical care for the past 5 years.  
• His HBPM record shows a BP range of 148 - 154 /88– 94 for the past month. He has gained 15 lbs over the last year and is sedentary in his lifestyle.  
• He is under a lot of stress due to a new promotion at work and working long hours. He is complaining of frequent headaches, fatigue and tiredness, episodes of dizziness and sleep disturbances, waking frequently during the night.
Question # 1

• Which of the following interventions would you chose for this patient at this visit? Why?

1. Lifestyle modification and behavior change trial only
2. BP lowering medication
Discussion Question # 2

• If you chose to start him on medication, which family of medications would you chose? Why?
  1. ACE or ARB alone
  2. Diuretic alone
  3. Calcium channel blocker alone
  4. Low dose combination therapy
Discussion Question 3

• What would be included in your lifestyle/behavior changes advice?
Discussion Question 4

• What further clinical evaluation would you pursue?
Anticoagulation Case Study

Ms. Long
Case Study

• 69 y/o man plays golf 4 to 5 days each week.
• History HTN, hip osteoarthritis
• He comes into the office feeling lightheaded and short of breath.
• EKG shows atrial fibrillation with HR 90 bpm to 130 bpm.
• Medications irbesartan 150 mg, ibuprofen 400 to 600 mg 3-4 x daily
• He drinks alcohol daily with his golf partners as well as at home
• BP 122/78, exam unremarkable
• LAB: lypes normal, Cr 1.6, MDRD GFR 43 ml/min, SGOT 65, SGPT 70
Case Study

- Concerns
- Renal function
- Liver enzyme elevation
  - NSAIDs
  - Alcohol
  - ? Underlying disease
Anticoagulant Case Study

- Stop ibuprofen
- Try to stop alcohol
- Recheck renal and liver function if not normalizing further liver workup
Choices of Anticoagulants

• Dabigatran –
  – Renal no dose adjustment needed his GFR is 43 ml/min (↓15-30 ml/min)
  – Liver no dose adjustment for mild to moderate liver disease
• Rivaroxaban
  – Renal Decrease dose to 15 mg qd with evening meal for CrCl 15-50 ml/min
  – Liver Avoid use in moderate hepatic impairment or coagulopathies
• Apixaban
  – Renal no dose adjustment needed he has one RF SrCr ≥1.5 mg (need 2 RF age, body weight)
  – Liver – No dose adjustment in mild hepatic impairment
• Warfarin
  – Renal no dose adjustment
  – Liver may increase bleeding risk
Choice of Anticoagulant

• Dabigatran
  – 80% renally excreted
• Rivaroxaban
  – 66% renally excreted
• Apixaban
  – 27% renally excreted appears to be best choice
• Warfarin
Treatment

• Apixaban
  – Lowest renal excretion 27%
  – No dose adjustment in mild liver disease – no recommendation on moderate liver impairment – not studied

• Dabigatran
  – Renal excretion 80%
  – No dose adjustment in mild to moderate liver disease
Thinking Through

• We know there is underlying renal insufficiency with Cr 1.6 mg
  – May improve with elimination of ibuprofen
  – Alcohol can contribute to dehydration

• Liver enzymes may reduce/normalize with elimination of ibuprofen and alcohol
Rate Reduction

- Calcium channel blocker commonly used but it interacts with all of the anticoagulants
- Consider beta blocker as first choice for rate control
- Monitor kidney and liver function
Case Summary

• Apixaban may be the best choice due to low renal clearance
• Beta blocker for rate control
• Close monitoring of LFT’s, CBC and kidney function