# GERIATRIC ORAL BOARD CASE PRESENTATION

Geriatric Lecture Block

April 2004

A 74-year-old man presents for cystoscopy, retrograde pyelogram, and a stent placement for ureteral obstruction. He is a smoker with a history of angina, hypertension, and a stroke 8 years ago with residual left arm weakness. A work-up for left chest pain resulted in a stress test done 2 months ago, which revealed a moderate reversible area on Persantine thallium testing. Catheterization showed an occluded right coronary artery and 80% left anterior descending artery stenosis. Estimated ejection fraction is 45%.

The patient was scheduled to have a PTCA/possible stent of the LAD 2 months ago, but it was delayed because he developed urosepsis with positive blood cultures following an attempted urinary catheterization at the time of his cardiac catheterization. Following 4 weeks of antibiotics he is again referred for his urologic procedure. He is now stable, afebrile, and able to perform usual activities of daily living, although he is very fatigued. His left-sided chest pain has subsided to a dull left-sided ache.

His urologist notes a significant increase in the size of the left kidney over the last month.

His current medications include aspirin, atenolol, and a statin. Vital signs: BP 152/98 mm Hg, HR 72 bpm, RR 16, RA saturation 97%, temperature 97.8 °F.

What preoperative evaluation will you require prior to proceeding?

*Lab testing — increase in BUN/creatinine = 36/2.4 from 23/1.7*

*Hct — 31% from 38%*

*Any coags?*

*ECG?*

Discuss the merits of different types of cardiac stress testing. What are the benefits of Persantine versus dobutamine echocardiography? Is there any point to obtaining a stress test at this time?

What are some of (if any) the hemodynamic consequences of hypertension?

*LVH, renal insufficiency, dehydration, electrolyte abnormality*

What type of anesthesia might you choose? What are some of the advantages and disadvantages of spinal/GA?

What type of monitoring?

Bradycardia occurs during the procedure. What is your differential? What would you do acutely?

*Minimal HR (if asked) is 28 bpm*

*BP at time is hard to check — after treatment with atropine, BP = 95/62 mm Hg*

*HR 65 bpm after atropine treatment*

Discuss the relative advantages and disadvantages of Neo-Synephrine and ephedrine.

Discuss beta-blockade in this man prior to induction.

**Postoperative**

Following the procedure the patient is taken to the PACU. Vital signs are initially stable; patient is sleepy but answers questions, including denying pain. After 20 minutes nurses note that HR has declined to 50 bpm from initial HR at 62 bpm. BP is 100/56 mm Hg. However, patient has no complaints. Any treatment required? Over the next 15 minutes the patient has episodes of bradycardia to the low 30s. Treatment now?

Differential diagnosis for bradycardia:

*Sinus bradycardia versus heart block*

*Clots/retention*

*Drug effects*

*Hypoxia*

*Ischemia*

*Cardiac arrhythmia — is it a heart block*?

The patient is successfully treated with atropine again. An EKG is unchanged; the patient now appears to be in a stable sinus rhythm of 65 bpm.

The PACU nurse calls you again — he is now very confused, with a fluctuating mental status from drowsy to combative.

*What is your differential for agitation and confusion in the PACU?*

*What vital signs, labs, etc?*

*Remember possible sodium issues.*

*Treatment — specific antidote and dose?*

**Grab Bag**

1. A 90-year-old man has a blood gas drawn in the holding area. While breathing room air his gas is 70 / 348 / 7.39. What is your management?

2. What is closing capacity? How does it change with age?

3. During the insertion of a hip prosthesis your patient's blood pressure suddenly plummets and the patient's oxygen saturation drops to 66%. What is your differential diagnosis? What measures could you recommend so this does not occur again?

4. You are asked to consult on an 89-year-old woman who requires cervical spine stabilization. She has very severe rheumatoid arthritis and significant joint destruction. On the recommendation of her neurosurgeon she is wearing a soft collar 24 hours a day. What are your concerns regarding her airway? How will you intubate the patient? Include specific description of the nerves to be blocked in for an awake intubation. The surgery will be done prone — what implications does this have for positioning?

***These are questions for a different forum I am presenting later — feel free to comment or add!!***

***Discussion items could include***:

1. Proceed with surgery or insist on the PTCA first? If the latter, how will you handle the month of mandatory clopidogrel therapy?

2. Choice of anesthesia (SAB vs. GA with LMA), and would you use invasive monitoring?

3. During the procedure, heart rate decreases to mid-30s and blood pressure decreases to 90/55 (from 140/90 preop). How treat?

4. Patient receives atropine 1 mg in OR for bradycardia and gets another 1 mg in the PACU. Later on, the PACU nurse and surgeon arrange a neuro consult because the patient is confused, disoriented, and not cooperative. ABG, serum Na, and glucose tests are obtained and when negative, the patient is sent for emergent CT. Appropriate management?

5. Suppose instead of a cysto, the patient needed an ORIF of a right arm fracture. He will be in a cast and unable to use the right arm for some time after surgery. He currently lives alone. How will he perform the usual activities of daily living? What special arrangements will need to be made? Is it appropriate to perform the surgery as an outpatient?