September 16, 2007

cc: Chest pain, SOB

HPI

[redacted] is a 47 yo African-American woman with a history of uncontrolled HTN, recently diagnosed CHF and dilated cardiomyopathy, and polysubstance abuse who came to the ED at 8:00am this morning c/o chest pain and SOB that started approximately 12 hours prior to presentation. She has been off of her heart failure medicines for the past 4 days because she ran out of money and cannot refill the prescriptions until she gets her disability check on Friday, September 21st. The last time she used cocaine was approximately 12 hours prior to the onset of her chest pain and SOB.

[redacted]'s pain is substernal and she also feels it under the left side of her chest in the midclavicular region; She describes the quality as a chest tightness/pressure without radiation to the shoulder, arm, back, or jaw. It has been a constant pain since it started yesterday evening. At first, she felt a stabbing pain that was 9/10 but eventually it became more "crampy" and is currently 1/10 in the ED after SL Nitro x 2 and ASA (325 mg). She tried Excedrin PM and Tylenol PM at home but it did not help. She also endorses taking 100 mg of Toprol XL yesterday but this also did not alleviate the pain. About 15 min after the chest pain started, she began coughing and endorses having green/brown sputum. The chest pain was not aggravated by coughing or taking deep breaths. Shortly thereafter, [redacted] became SOB. She felt like she could not catch her breath and got worried so she called 911 and they brought her to the ED. She continues to have 3-4 pillow orthopnea and DOE but is currently denying PND, abdominal distention, or peripheral edema. In addition to the nitroglycerin and aspirin, she has been given Lasix 40 mg IV.

Past Medical History

- CHF (July 2007)
- Dilated cardiomyopathy (July 2007)
- Breast CA (Stage II left intraductal breast carcinoma metastatic to 1/14 left axillary lymph nodes, diagnosed March 2006)
- S/P left mastectomy, chemotherapy, and XRT (2006)
- Depression (2006)
- HTN (longstanding)
- Mastitis
- Polysubstance abuse (longstanding)
- Prolonged QT interval

Past Surgical/Hospitalization History

- 8/15/2007-8/162007 – [redacted] was observed in the chest pain unit at CMC main after presenting to the ED with C/P and SOB. Cardiac enzymes WNL, no dynamic EKG changes concerning for cardiac ischemia. POC BNP was 864. Went on to have a pharmacologic stress test without evidence of inducible myocardial ischemia; there was evidence of LV global hypokinesis with a calculated EF felt to be about 32%.
- 7/11/2007-7/16/2007 – [redacted] was admitted to CMC for a 5-day stay after presenting to the ED with C/P and SOB. Cardiac enzymes, electrolytes, Mg++ levels all WNL, EKG showed normal sinus rhythm with LA enlargement, LVH, and a prolonged QT interval (.514 sec) but no dynamic changes worrisome for cardiac ischemia. CXR showed marked cardiomegaly with some pulmonary vascular congestion. An ECHO was preformed during this time revealing LA dilation (5.0 cm), LV size at the upper limit of normal, severe impairment of LY systolic function with a calculated biplane EF of 14%. The LV diastolic filling pattern was felt to be "pseudo-normal." It was during this time that [redacted] was started on an aggressive 5-drug regimen for heart failure and recommended to follow up with a cardiologist at the Myers Park Heart Failure clinic. She has followed up with the Heart Failure clinic two times since July.
- Left mastectomy (July 2006)
- C-section (1989)

Medications

1) Toprol XL (100 mg po qday)
2) Digoxin .125 mg qday

3) Lasix 40 mg qday
4) Lisinopril 10 mg qday
5) Spironolactone 12.5 mg qday
6) Nicotine transdermal patch (21 mg/24 hours, 1 patch daily)
7) Lortab 5/500 1 tab po q6h prn pain
8) Excedrin PM (5 tablets/day)
9) Tylenol PM (5 tablets/day)
10) Protonix 40 mg po qday before meals

Allergies

1) PCN (swelling of the throat)

Social History

The patient started smoking when she was 15 yo and smokes roughly .5-1 ppd. She also started drinking when she was 15 yo. She currently has about 5-6 drinks/week; she drinks mostly liquor. Her heaviest bout of drinking was during her 20s – for 2 years straight the patient endorses having 5 drinks per day. She has been doing cocaine for the past 20 years but denies IVDU. [redacted] is currently unemployed which she says is due to her physical condition. She has two children - a 17-yo daughter with whom she lives and a 26-yo son who is at home every now and then. Her financial situation is tight and she has no medical insurance. [redacted] and her daughter are both currently collecting disability.

Family History

Mother died of a stroke at age 60. Father died of a stroke at age 40. HTN and DM run in her family. [redacted] has two sisters and two brothers. At least one of her brothers and one of her sisters has both HTN and DM. [redacted] says that she is the only person in her family to ever have cancer.

ROS

General: + Night sweats, fatigue. Denies weight loss, fever.
Eyes: Denies eye pain, acute visual loss, or significant visual changes.
Ears, Nose, Mouth, Throat: + Rhinorrhea. Denies allergies, epistaxis, sore throat, neck stiffness or tenderness.
Cardiovascular: + Occasional palpitations. Denies edema.
Respiratory: No wheezing, hemoptysis, asthma, PNA, TB, or emphysema.
GI: + Nausea, vomiting (non-bloody, non-bilious), occasional diarrhea. No indigesiton, heartburn, or adbominal pain.
GU: No itching, burning, or pain with urination. No hematuria.
MSK: + Low back pain
Neurologic: No H/A, dizziness, loss of sensation, loss of function, numbness, tingling, or weakness
Endocrine: Denies a history of thyroid problems, anemia, or DM
Psychiatric: + Depression. Denies history of anxiety or suicidal ideation.

*Please note that the patient says that she has been having night sweats, fatigue, nausea, and vomiting almost every day since chemotherapy in 2006.

Physical Exam

Vitals: T 97° F HR 104 BP 160/108 RR 24 O_2 Sats 94% on 2L oxygen
General: NAD, somewhat SOB but able to speak in full sentences
Psych: Patient is anxious-appearing
HEENT: Head is normocephalic
PERRLA, EOMs intact, eyes anicteric
Nares patent, oral mucosa normal-appearing. Good dental hygiene.
Mucous membranes are moist and pink.
Neck: Neck supply without thyromegaly, normal ROM, no LAD
Pulm: Chest wall symmetric, large mastectomy scar on the left chest wall with some tenderness to palpation over the scar. Bilateral bibasilar crackles, more prominent over the right lung. No wheezing or rhonchi appreciated.
Cardiac: Sinus tachycardia, NL S1, S2 with S3 gallop. No murmurs or rubs. No JVD. No cyanosis, clubbing, or edema. 2+ pulses bilaterally at the carotid artery. 1+ pulses bilaterally at radial, DP, and PT arteries.

Skin: Acanthosis nigricans noted on posterior aspect of neck. Port-a-cath still in right upper chest wall. No other skin abnormalities appreciated.
Neuro: Mental Status: A, A, and O x 3; CNs II-XII grossly intact.
Breast: No lumps or fixed masses appreciated in the right breast, no nipple discharge or skin discoloration noted.
Lymph: No cervical, supraclavicular, axillary, or inguinal LAD.

Data
POC results at 8:00 am 9/16/2007
Na 142 Cl 109 BUN 16 Glc 101
K 3.8 CO2 23 Cr .8

POC Troponin I .01
POC Ck-MB 2.2

CXR: Significant cardiomegaly >2/3 the width of the chest wall. Increased pulmonary vascular congestion. Costophrenic angles are difficult to see. The size of the heart obliterates the left costophrenic angle. There appears to be increased opacity over the right costophrenic angle as compared to last CXR in August 2007; this may be c/w pulmonary edema. There is no evidence of lobar infiltrates, effusions, masses, or pneumothorax.

EKG:
Rate - 104 Rhythm - Sinus Tachycardia Intervals - PR .162 sec, QRS .086 sec, QT .465 sec
Axis - +30-45° Hypertrophy - LVH (V2 + V6 > 35 mm) Infarcts – No ST segment elevation or depression, no evidence of Q waves or TWI, nonspecific T wave abnormalities (some ST flattening in leads AVL, V1, and I)

Assessment & Plan
47 yo African-American woman with a history of CHF, dilated cardiomyopathy, and polysubstance abuse presenting with a 12-hour history of C/P and SOB.

1) **Chest pain, SOB**: Although I considered things like Digoxin toxicity, cocaine-induced ischemia, and MI in my differential diagnosis, I believe this is most likely a CHF exacerbation that is multifactorial in nature. [redacted] has a significantly lowered EF and a severe dilated cardiomyopathy and she continues to drink, smoke, and use cocaine. Moreover, the patient stopped taking her heart failure medicines approximately two days prior to the onset of her C/P and SOB. There is objective evidence from both previous trips to the hospital in July and August that helps rule out MI - cardiac enzymes were WNL and the Adenosine Myoview demonstrated normal myocardial perfusion. [redacted] is going to be admitted to a Tele bed for overnight observation. She is on 2L of supplemental oxygen via nasal cannula to ensure that her oxygen sats stay above 92%. We will obtain a 2nd set of cardiac enzymes (CK-MB, Troponin I) 10 hours after presentation at approximately 6:00pm this evening and a repeat EKG will also be performed at this time. We will observe how she responds to the 40 mg of Lasix given in the ED; if her SOB persists, we will consider giving more Lasix. We are also changing her Toprol to Carvedilol because of its additional α-adrenergic antagonism. We fill this is necessary given the patient's recent cocaine use and the fact that cocaine causes hypertension (via inhibiting norepinephrine uptake and agonizing α-receptors). Will check a BMP and BNP in the AM. We will hold off of any imaging studies or stress tests at this point given that the patient has recently had both an echo and a pharmacologic stress test. We are recommending for her to go back to see her cardiologist at the Heart Failure clinic and to restart her heart failure regimen as soon as gets the finances to refill her prescriptions.
2) **Polysubstance abuse**: It is critical that [redacted] stops drinking, smoking, and using cocaine in order to avoid further damage to her heart. Although she has been previously educated about the negative effects of substance abuse with regard to her heart failure, she continues to use. We are requesting a consult with MSW to discuss various drug rehab programs within the community that [redacted] can access. We will continue with the nicotine patch for smoking cessation and encourage her to stop drinking, smoking, and using cocaine. We have ordered a urine drug screen to document for this particular hospital visit.
3) **Nutrition**: Rally pack (thiamine, folic acid, MVI, Magnesium Oxide) + Heart Disease Prevention Diet.

4) **Prevention**: Recommend Pneumovax and Flu shot to avoid illnesses that may exacerbate CHF so that we can avoid future hospitalizations. Of note, [redacted]'s Port-a-Cath from chemotherapy in 2006 is still in place; this is concerning as it is a potential source of infection and other potential complications. We are recommending removal in the outpatient setting and will have to find a way to work around the patient's financial situation. [redacted] has been placed on the DVT prophylaxis protocol with SC Heparin because she falls in a higher risk category with her CHF. SL nitroglycerin prn for anginal symptoms. Lortab 5/500 prn for pain. Zofran prn for nausea.
5) **Ethics**: Full Code.
6) **Dispo**: Assuming [redacted] has no serious overnight events, there are no dynamic changes on her EKG, 2nd set of cardiac enzymes are normal, and C/P + SOB are resolved in the AM s/p Lasix, I feel confident we can discharge her tomorrow. No home health services are currently needed.

References

1) UpToDate. Overview of the therapy of heart failure due to systolic dysfunction.
2) UpToDate. Predictors of survival in heart failure due to systolic dysfunction.
3) UpToDate. Cardiovascular complications of cocaine abuse.
4) Sabatine, Marc S (ed). Pocket Medicine: The Massachusetts General Hospital Handbook of Internal Medicine, 2nd edition. Philadelphia: Lippincott Williams & Wilkins, 2004.

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