Patient - LH
Date of Service: 1/8/08
Source: Patient is her own source and her reliability is fair
Chief Complaint: 64yo white female with back pain, right shoulder pain, sore throat

History of Present Illness

- *Back pain*: LH complains of an exacerbation of her back pain that has been escalating over the past couple of weeks. For the past four days she has been using a borrowed wheelchair around her house due to the pain. It is worse with prolonged sitting or walking and relieved by leaning forward. It is typically an aching pain that becomes sharp with certain movement. The pain also occasionally radiates down her legs. She has a history of spinal stenosis and degenerative joint disease and reports a history of falls in the past as an initial cause of the pain. Lumbar x-rays and an MRI in WebCIS have shown the presence of severe spondylosis with central canal and foraminal narrowing related to degenerative changes. She is on a standing regimen 50mg of methadone daily for pain relief for her back. She also reports taking a single unknown dose of Demerol almost daily since her toe amputation for osteomyelitis on 11/14/07, but there is no record of this in WebCIS. She has previously been evaluated by spinal surgery by Dr. Mathur at the Orthopedic Spine Surgery clinic, but he has been hesitant about operating due to LH's diabetes, which has recently been complicated with osteomyelitis, as well as her continued smoking. She has also undergone an epidural steroid infusion in 4/07.
- *Shoulder pain*: LH's right shoulder has also been causing severe discomfort that has increased over the past several days. It is a constant aching pain that does not radiate into the arm or involve the neck. She has not noticed any changes in the range of motion, but does report pain with most movement. She also recently burned herself on the posterior right shoulder behind the AC joint after falling asleep on a heating pad, but this is healing well and she does not think it is the source of the pain. She has had prior x-rays available in WebCIS or her right shoulder that show degenerative changed and osteophytosis in her shoulder. Her pain control includes the methadone as discussed above as well as a lidoderm patch that she is currently worn on her left shoulder. She had been prescribed the patch for her left shoulder but started wearing it on the right after she burned her left shoulder.
- *Sore throat*: The patient also reports a two week history of sore throat and of seeing white pus in the back of her throat. She has a mild cough productive of clear sputum that has mostly subsided, but had not had any significant dyspnea. The cough is also associated with some left sided pain that she indicates is approximately over the lateral aspect of the 10th rib space. She also reports a fever of 101 degrees Fahrenheit sometime last week, but denies other constitutional symptoms of night sweats or chills and is currently afebrile. She also denies dysphagia, drooling, nausea, vomiting, or excessive fatigue. She

has not taken anything to specifically relieve the pain, and she believes it has been improving over the last few days.

- *Diabetes mellitus*: This was not discussed at length during this visit, but LH reports relatively good control of blood sugars recently with metformin 850mg tid. She has had feelings of "pins-and-needles" for a years now when she is resting, but she does not feel it has acutely worsened.
- *Depression*: LH reports having a good mood and enjoying the company of her family over the holidays. She has been sleeping relatively well and feels that her energy level is good despite her pain.

Past Medical History

Active: Treated hypertension, treated depression, allergic rhinitis, diabetes mellitus type 2, tobacco abuse, treated GERD, colonic polyps
Inactive: Osteomyelitis in 2nd left toe s/p toe amputation 11/14/07, left foot cellulitis with abscess from foreign body 2005 s/p I&D , breast cancer 1993 s/p mastectomy and tamoxifen, left medial malleolus fracture 1999,

Hospitalizations

Surgeries/procedures: Left 2nd toe amputation at distal phalanx, appendectomy 1997, right mastectomy 1993, Hysterectomy 1992
Medications:

- Dermotic Oil 0.01% ear drops bid
- Lipitor 80mg po qhs
- Neurontin 300mg, taken 900mg tid
- Nexium 40mg qd
- Docusate Sodium 100mg prn
- Enalapril 2.5mg qd
- Kenalog 0.1% cream applied bid
- Metformin HCl 850mg tid
- Aspirin 81mg qd
- Furosemide 80mg bid
- Citalopram HBR 40mg, take 1.5tabs qd
- Wellbutrin SR 100mg bid
- Detrol LA 4mg qd
- Lidoderm 5% patch applied q12 hrs prn
- Mg-oxide 400mg, take 1600mg bid
- Methadone 10mg, take two in morning, one at lunch, one at dinner, and one at bedtime

Allergies: Vancomycin (rash), prednisone, valdexocib, rofecoxib

FH

Significant for stroke, heart disease, breast cancer, melanoma.

SH

Patient has been smoking for 50 years and currently smokes 1pk/day. She denies alcohol use. She was previously a switchboard operator at Wal-Mart, but is now retired. She is self-pay and applying for DSS currently.

ROS

General – No change in appetite or weight loss. See HPI
HEENT – Positive for some mild rinorrhea. Denies otalgia, tinnitus, sinus pain, changes in vision or hearing, or headache.
Cardiovascular – denies chest pain or palpitation. No PND. Denies claudication in lower extremities.
Pulmonary – Mild but stable SOB on exertion, mild cough (see HPI), no reports of wheezing.
Gastrointestinal – 1-2 bowel movements daily with occasional constipation relieved by docusate sodium. No black or bloody stools. No abdominal pain, nausea, vomiting, or diarrhea.
Genitourinary – Some urinary incontinence after taking neurontin. No dysuria, urgency, or recent increase in frequency.
Neuro – Patient reports minor "pins-and-needles" in feet and lower legs at night. Also some pain radiating down her legs occasionally with hip movement. No other paralysis, paresthesia, weakness, dizziness, or change in vision reported.
Musculoskeletal – See HPI. Also endorses some knee pain bilaterally.
Endocrine – No recent skin changes, fatigue, or temperature intolerance
Hematopoietic – denies easy bruising or excess bleeding.
Psych:

Physical Exam

Vital signs: Ht 149.9cm Wt 62.8kg HR 98 BP 131/76 Temp 36.9 C Pain 6/10, O2 sat 95% on RA
General: Patient appears stated age and in some pain, but not acutely distressed. Sitting in wheelchair. Well-nourished.
HEENT: Oropharynx is symmetrical and slightly red with prominent tonsils but no exudates. Oral cavity and nasopharynx are moist and pink. TMs appear normal.
Lymph nodes: Non-tender, no palpable masses
Neck: Single 1cm palpable left posterior cervical lymph node. No thyromegaly or increased JVD.
Cardiovascular: Regular rate and rhythm. Normal S1, S2. No M/G/R
Chest: Scattered wheezes heard bilaterally. No rhonchi or rales. Egophony produces "E" sound equally over all lobes.
Abdominal: Nontender, nondistended.
Rectal: not examined
Neurologic: Extraocular movement intact. Tongue protrudes and uvula rises in midline. Other CNs grossly intact. Fine touch sensation in lower extremities normal and equal bilaterally.

Knee jerk and Achilles reflexes 2+ bilaterally. Gait is slow but symmetrical with forward flexion of spine.
Musculoskeletal: Right shoulder shows 4cm x 2cm scabbed lesion posterior to AC joint without erythema, exudates, or significant tenderness to palpation. Right trapezius feels tight and is tender to palpation. Range of motion is full in both shoulders with some pain in the right shoulder with movement, most significantly with abduction. Palpation of lumbar vertebrae reveals exquisite tenderness. Back range of motion and leg raise tests were not performed due to significant patient discomfort.

Laboratory Data

11/29/07 – Na 143, K 5.3, Cl 101, BUN 14, Cr 1.2, Est GFR 48.07, Anion gap 11, BUN/Cr 12, Ca 9.3, Mg 1.1, P 4.3, AST 35, ALT 39

Assessment and Plan

- *Back pain*: This has been a longstanding problem for LH, and spinal stenosis and foraminal narrowing related to degenerative disease is almost certainly the cause. Other causes of back pain such as strain or sprain about the lumbar vertebrae, vertebral fracture, neoplasm, infection, or referred pelvic pain have essentially been ruled out. Sprain and strain account for close to 70% of low back pain, but age-related degenerative changes, spinal stenosis, and disc herniation are the next most common causes, accounting collectively for about 17% of chronic low back pain (1). Given the chronicity and progression of LH's disease as well as reasons discussed below, degenerative changes with stenosis and herniation are likely the cause of her pain.

  The duration of the symptoms and progressive worsening suggests a degenerative process as the cause of her back pain. Imaging studies including plain films of the lumbar spine and an MRI from 2/26/07 have confirmed severe narrowing of the spinal canal at multiple lumbar vertebrae as well as foraminal narrowing and disc herniation at multiple lumbar levels. Her clinical presentation correlates well with these findings as she reports very characteristic neurogenic claudication that is relieved quickly with rest or leaning forward. Neurogenic claudication has a reported sensitivity of 60-94% for lumbar spinal stenosis (2, 3). She also reports radiation of the pain down her legs, suggestion involvement of the lumbar nerve roots at the narrowed foramen. Nerve conduction studies confirmed multilevel radiculopathies at the lumbar vertebrae involving the paraspinous muscles, which would correlate with the clinical findings.

  MRI is 83-93% (4) and plain x-rays are about 60% sensitive (5) for spinal metastases so absence of evidence on these studies for LH makes this diagnosis unlikely. A full body bone scan on 12/11/07 also showed no evidence of metastatic disease affecting any bones. Infection is similarly ruled out due to the high combined sensitivity of MRI and x-

ray to osteomyelitis in the lumbar vertebrae (4, 5).

Referred pelvic or abdominal pain is also very unlikely given the lack of abdominal or pelvic pain reported in her recent history. Palpation of the pelvis and abdomen also fail to exacerbate the pain on physical exam, and there is no evidence of dysfunction of any pelvic or abdominal organs. Referred pain is an uncommon cause of chronic back pain, and LH's history is much more characteristic of spinal pathology.

Treatment at this time will be aimed at controlling LH's pain. She has been on her methadone regimen for quite some time now and has a strong emotional and most likely physical reliance on it. She should continue taking methadone 20mg in the morning, 10mg at lunch, 10mg at dinner, and 10mg before bed. At this time we will also encourage her to start acetaminophen 650mg q6hrs to help with the pain and associated inflammation. NSAIDs will be avoided to prevent the possibility of increased cardiac risk (6) since she already has risk factors including diabetes, hypertension, and tobacco abuse. She also needs to stay ambulatory and a two-wheeled walker with a seat was prescribed to allow her to walk with some forward flexion. Hopefully, this will encourage her to continue walking and keep her lumbar spinal cavity as patent as possible to prevent compression and pain.

The best long term intervention is somewhat uncertain. Spinal surgery for lumbar stenosis has been fairly well studied and outcomes for surgical vs. non-surgical treatment are not dramatically different. The Maine Lumbar Spine Study has followed 97 patients for 8-10 years in a prospective observational cohort study and both the surgical and non-surgical groups reported marked improvement over the treatment period. Only moderate advantages in leg pain relief and functional back status were seen in the group that initially chose surgery (7), but the risk of surgery includes a 0.5-2.3% mortality risk depending on patient profiles (8, 9). Repeat operations are also common at 20-25% (10, 11). Given LH's high surgical risk due to a history of diabetes complicated by osteomyelitis, uncontrolled hypertension, and advanced age she is a poor surgical candidate, and Dr. Mathur would be reluctant to operate on her. At this point the moderate possible benefit gained would not be worth the risk of the operation in her case. Another epidural injection with a steroid and anesthetic may be helpful in the future is she wishes to undergo the procedure again. Only a few studies of fair quality have addressed this intervention for spinal stenosis, but initial results indicate a short term benefit in pain relief and functionality (12, 13). Physical therapy also appears to show some benefit in early investigations and may be considered for LH in the future (14).

- Summary of interventions today:

    1. Start acetaminophen 650mg q6hrs
    2. 2-wheeled walker with seat prescribed
    3. Continue methadone 50mg daily

- *Shoulder pain*: Previous x-rays have shown severe degenerative joint disease with osteophytosis in her right shoulder, which correlates with her clinical complaints of pain with movement and conserved range of motion. There also appears to be some muscle spasm in the trapezius associated with the painful shoulder. She had moved the lidoderm patch to the opposite shoulder after burning her right shoulder with the heating pad so she has most likely had less pain control in that shoulder recently as a result. Now that the area is healing well she should move the patch back to her right shoulder. Starting acetaminophen and continuing methadone as described above should also help with pain control.
- *Sore throat*: LH is currently afebrile and the HEENT exam did not reveal signs of a bacterial pharyngitis such as tonisillar swelling or exudates. Physical exam and history also do not indicate pneumonia or other infection that would warrant antibiotic therapy. Given the recent improvement and time course of the complaint it is most likely a self-limiting upper respiratory tract infection that will not benefit significantly from any pharmacotherapy at this stage. She will contact the clinic if she develops high fevers, difficulty swallowing or breathing, or severe worsening of symptoms.
- *Diabetes Mellitis*: The problem appears to be stable, but was not addressed at length during this visit. No intervention was made today and she will follow-up with Dr. Aleman at her next visit for management.
- *Depression*: This problem appears to be stable. She can continue the celexa and buproprion and follow-up with Dr. Aleman at her next scheduled visit.