IMC Case: An EBM Approach to Low Back Pain

A 46 year old white female presents to the IMC with chief complaint of low back pain. The patient states she started to have low back pain 2 days ago, after lifting some heavy boxes in her basement (she was throwing out some of her ex-husband's stuff). She describes the pain as 8/10, dull constant ache in "the small of my back". She states there is some mild pain in her right buttock as well, but no significant pain in her legs. She denies any weakness or numbness in her legs. She is able to ambulate, but notes significant increased low back pain with any motion. She denies any abdominal pain, dysuria, hematuria, urine incontinence or retention, bowel incontinence or constipation, fever or chills. No history of cancer. She has been using ice packs on her back, applied Ben Gay with minimal relief, and pretty much "staying in bed". Acetaminophen has provided mild relief. She works as a secretary for a shipping office, and has had to call off work the last two days. No hx of injury, trauma or previous low back pain.

PMedHx: Uterine fibroids, allergic rhinitis, deviated nasal septum, Migraine headaches
PSurgHx: Hysterectomy (fibroids) at age 42
Allergies: PCN (rash)
Meds: Sumatriptan 50 mg prn HA; Fluticasone nasal spray daily
Social: 1 ppd x 20 yrs; hx of "alcohol problem, I don't want to talk about it"; denies illicit drug use; recently divorced "husband found another woman" with 2 teenage sons; hates her job, but it "pays the bills"
Family: Father, alive age 70 – alcoholic; Mother, alive age 69 – diagnosed with breast cancer age 65, status post lumpectomy, radiation, chemo, "hormone tx"
ROS: no wt loss; no fever or chills; occasional migraine; no sore throat; no chest pain or palps; no cough, wheeze, sob, or hx of lung disease; no abdominal pain, n/v/d/c; no vaginal discharge, dysuria, hematuria; no hx nephrolithiasis; no rash. Hx otherwise as above

Vitals: Afebrile 97.4 80 bpm 14 rpm 138/84 98%RA Ht 67 inch Wt 200# BMI 31
Gen: A&Ox3, Nontoxic, Flat affect, appears uncomfortable when moves
HEENT: PERRL, EOMI, oral mucosa moist with no oral lesions, TM's clear, turbinates pink and moist
Neck: Supple, no JVD, no Bruit, no Nodes
Heart: RRR with no murmur, gallop or rubs
Lungs: BCTA, no wheeze, rhonchi, rale
Abdomen: Soft, +BS, NT/ND, no mass, hernia, or organomegaly. Noted low transverse scar on abdomen consistent with hx hysterectomy; rectal unremarkable with good sphincter tone
Back: Cervical and thoracic regions unremarkable; significant paraspinal muscle tenderness and spasm right lumbar > left; minimal tenderness to palpation of lumbar spinous processes; decreased range of motion (flexion, extension, side

bend, rotation) of the lumbar spine; no increased pain with compression on head; straight leg test bilateral with pt complaining of mild tightness in posterior thighs, and mild discomfort in back, but no pain otherwise
Lower leg: No edema, no calf tenderness, no rash
Vasc: PPP
Neuro: CN2-12 intact; no focal motor or sensory deficits; Patellar and Achilles reflexes +2/4 symmetric bilaterally

Please utilize the below link to the ACP/APS Low Back Pain Guidelines to answer below questions:
http://www.annals.org/cgi/reprint/147/7/478.pdf

Utilizing the above history and physical, how would you classify the patients back pain:

- As to onset:
  a. Acute
  b. Subacute
  c. Chronic

- As to severity:
  a. Nonspecific low back pain
  b. Back pain potentially associated with radiculopathy or spinal stenosis
  c. Back pain potentially associated with another cause (tumor, fracture, infection, ankylosing spondylitis)

What are some of the risk factors you would look for in a patient's history if you were concerned about:

- cancer causing low back pain
- vertebral infection causing low back pain
- vertebral compression fracture causing low back pain
- ankylosing spondylitis causing low back pain
- spinal stenosis
- herniated lumbar disc
- What is the most frequent finding in cauda equina syndrome? If a patient does not have this finding, what is the probability of cauda equina syndrome?

Are any of these factors present in the above patient?

What psychosocial factors may predict poorer low back pain outcomes?

Which of these factors are present in our patient?

- Review SIG E CAPS as a tool for the diagnosis of depression.
- The patient screens positive for depression, but denies suicidal or homicidal thoughts, and refuses any treatment ("I just need to get thru this tough time")

You tell the patient she has nonspecific low back pain. Before reviewing the treatment plan, the patient asks if you can schedule her for an x-ray or MRI, as she read on the internet this is the best way to "find out what's going on".

- Would lumbar x-rays, CT or MRI be indicated in our patient at this time? Explain your answer.
- When are these studies indicated?
- How are you going to explain to the patient why you are not ordering imaging studies at this time?

The ACP has recently (2011) released a statement regarding imaging for this condition. Knowledge of this may help you in shared decision making discussions with this patient.

http://www.annals.org/content/154/3/181.full.pdf

The patient states she understands why you are not obtaining imaging studies, and now would like to know your treatment recommendations.

Utilize the below link to 2017 ACP guideline on low back pain noninvasive treatments to answer questions on nonpharmacologic and pharmacologic therapies:

http://annals.org/aim/article/2603228/noninvasive-treatments-acute-subacute-chronic-low-back-pain-clinical-practice

What advice would you give patient on prognosis, self management, and nonpharmacologic therapies?

Devise a medication regimen for the patient.

What is your follow-up plan?

You note the patient misses her follow-up visit 4 weeks after initial visit. You have the IMC scheduler call and arrange another follow-up. Twelve weeks later (16 weeks after the original visit) the patient shows up in the IMC. The patient states she was slowly improving on your treatment regimen, but had a finger nail infection (paronychia) treated at the ER and was given "Vicodin" and noted this really seemed to help her back a great deal. She states she still has 6/10 dull ache in the low back (no fever, chills, wt loss) and now some mild right leg weakness. You perform a Hoover's test, and there is no down-going pressure with left heel with attempts to raise right leg. Exam is otherwise benign.

- What is a Hoover's test?
- Does the patient have chronic low back pain? Please define.
- What are some pharmacologic and nonpharmacologic treatment options for chronic low back pain?
- Utilize the below link to 2017 ACP guideline on low back pain noninvasive treatments to answer questions on nonpharmacologic and pharmacologic therapies:

http://annals.org/aim/article/2603228/noninvasive-treatments-acute-subacute-chronic-low-back-pain-clinical-practice

- The patient has worker's comp forms for you to fill out (stating now she believes the injury occurred at work). What is your response?
- You offer the patient a NSAID and an exercise therapy plan, the patient just becomes very upset and states "the only relief I get is with the Vicodin". What are some risk factors for medication abuse in the patient's history?

You run an OARRS report and find that the patient has received over 10 different hydrocodone – acetaminophen prescriptions over the last three months from 6 different providers. You confront the patient with this information, she bursts into tears stating she is addicted to Vicodin and has been obtaining it "both from physicians and street pharmacists". She states she would like help getting off of the Vicodin and with her depression.

- What are some of our resources inside of the IMC for a patient like this, and what are some local referral options?

Case Author: Rex Wilford DO, updated 2-2017