Chief Complaint:

“My doctor told me my blood was low”

History of Present Illness:

Mr. KC is a 71 year old male with PMH notable for internal hemorrhoids and anemia presents to the ED for stabilization and workup of anemia found two days ago at his PCP. He presented there for right knee pain, a CBC was done, and he was found to have a hemoglobin of 6.5. The PCP recommended that he present to our ED for workup and treatment.

He reports feeling subjectively tired for “the last couple of years” but he attributed it to insomnia. He prescribes the fatigue as present at baseline and worse with exertion. He denies chest pain or difficulties breathing. He recalls being seen one year ago at an outpatient clinic for the fatigue, was told he was anemic, and he was instructed to take ferrous sulfate tablets. He reported that he took the tablets and quickly developed constipation. After five to six months of these symptoms he discontinued the ferrous sulfate tablets and his stool returned to normal. He did not notice any change in energy levels while he was on therapy. He has noticed a few episodes of black, tarry stools over the past year. He estimates that it has occurred maybe five times in total. In addition, he reports occasional “bright red blood” in his stool after constipation that he attributes to hemorrhoids. These episodes occur “every couple of months,” last for a few days, and are non-painful. The last episode was about two months ago. He reports being diagnosed with “some kind of hemorrhoids” in his 50s. He has an unintentional 18 pound weight loss over the past month. He denies recent fever, chills, or night sweats. He has never had a colonoscopy before. The patient does has a family history of myelodysplastic syndrome that his mother died of at age 87.The story is really easy to follow and it is obvious the writer has a differential in mind based on the pertinents included in the last several sentences.

In addition, he reports intermittent, crampy epigastric abdominal pain every few days. The pain is unrelated to bowel movements and is partially relieved by over the counter omeprazole. He typically has a bowel movement every two to three days and it is “hard.”

The patient is most concerned about right knee pain that led him to present to his primary care physician. This pain began in the last few months and become progressively worse. The pain is described as sharp, intermittent, 7/10 pain at its worst. The pain is worse with movement & weight bearing and is at its lowest level or absent in the morning. He has never had pain like this before and the pain does not radiate anywhere. The pain is relieved to a 5/10 when he takes ibuprofen. He has typically been 400mg of ibuprofen 3-4 times a day for the past month.

Commented [HE1]: While not critical to know this up front, they are clearly relevant to the CC so it is not distracting from the narrative.

Commented [HE2]: Technically this isn’t relevant to CC so would go in ROS

Commented [HE3]: This is relevant to CC

Past Medical History:

Gastroesophageal Reflux Disease
Hypothyroidism - diagnosed at age 26
Herniated Disc at L5
Allergic Rhinitis

Past Surgical History:

2013 - Ventral Hernia repair - St. Michael’s Hospital in Jacksonville
2014 - Ventral Hernia repair - Different location on abdomen, treated at St. Michael’s Hospital in Jacksonville
Approximately 2008 - External hemorrhoids removal

Medications:

Omeprazole prn, unknown dose
Levothyroxine 75 mcg once a day
Ibuprofen 400mg 3-4 times a day

Allergies:

“Pain Pill” - lead to diffuse pruritus, unknown name

Family History:

Mother - died of myelodysplastic syndrome at age 87
Father - died of a brain tumor at 60
Brother - died of metastatic melanoma at 70
Brother - living, diabetes, obesity

Social History:

Review of Symptoms:

General: Pt denies fever, chills, night sweats, weakness, appetite change. **Pt reports 18 lb weight loss over the past month.**
Head: Pt denies headache, dizziness, vision changes, photosensitivity.
Ears: Pt denies tinnitus, earache. **Pt reports bilateral hearing loss.**
Nose: Pt denies nasal discharge, congestion, sneezing.
Mouth, Throat, Neck: Pt denies sore throat, hoarseness, mouth pain, neck swelling.
Cardiovascular: Pt denies chest pain, dyspnea on exertion, palpitations, orthopnea, PND, peripheral edema.
Respiratory: Pt denies shortness of breath, wheezing. **Pt reports occasional nonproductive cough.**
Gastrointestinal: See HPI.
Hematological: Pt denies easily bruising or bleeding.
Genital/Urinary: Pt denies urgency, dysuria, hematuria, nocturia. **Pt reports polyuria.**
Endocrine: Pt denies polyphagia, heat/cold intolerance. **Pt reports polydipsia.**
Musculoskeletal: Pt denies weakness, pain, or stiffness in joints or muscles.
Skin: Pt denies skin, hair, & nail changes, rashes, sores.
Neurological: Pt denies numbness, tingling, tremors.
Psychiatric: Pt denies suicidal ideation.

Commented [HE4]: Author didn’t need to repeat this and other parts of ROS that were mentioned in HPI.

Physical Exam:

Vitals:

Temperature: 97.4
Pulse: 90
Respiratory Rate: 16
Blood Pressure: 106/65
O2 Saturation: 95
BMI: 34.2

General: Obese male, in no apparent distress, sitting up in recliner.
Head: Normocephalic, atraumatic.
Eyes: Extraocular movements intact, pupils equal, round, reactive to light & accommodation, anicertic. **.**
Ears: No erythema in external auditory meatus. Right tympanic membrane normal. **Left tympanic membrane appears retracted, no perforation or erythema present.**
Mouth: Mucous membranes moist, no petechiae, or exudates.
Neck: Simple, trachea midline, no lymphandenopathy in occipital, postauricular, preauricular, anterior cervical, posterior cervical, submental, mandibular, supraclavicular, axillary, and femoral chains, no thyromegaly.
Respiratory: Nl respiratory effort, CTA bilaterally w/o wheezes, rales, or rhonchi, Nl chest expansion, no dullness to percussion.
Cardiovascular: Regular rate & normal rhythm, heart sounds distant due to body habitus, however S1 & S2 were present and normal in L 2nd intercostal space without murmurs, rubs, or gallops, other areas unable to assess due to body habitus. PMI was not visualized. No carotid bruits, 2+ bilateral carotid, radial, & dorsalis pedis pulses.
Abdominal: Nl bowel sounds, soft, non-distended, no hepatosplenomegaly. **Ventral hernia present in left upper quadrant that extends past midline. Tenderness to palpation in epigastric area.**
GU: Normal rectal tone, smooth prostate, brown stool present, **guaiac negative** (per ED physician)
Extremities: 1+ pitting edema present on legs bilaterally.
Skin: No jaundice, petechiae, or ecchymosis present. **Brown, multicolored, 1.2 cm macular lesion with irregular border noted on right upper back. Three 0.5 cm brown papules present just lateral to right eye**
Neurological: AOx3, CN II-XII intact, 5/5 strength, Pain/soft reflexes intact, 2+ reflexes.

Overall the PE is presented in a very organized manner and the descriptors are clear and specific.

Laboratory Data:

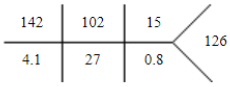
ED Labs:
Hg: 6.8 (6.5 at PCP two days ago)
Hct: 26.3
WBC: 6.71
Plt: 498
MCV: 64.5
RDW: 24.5
Diff: PMNs 66.8%, Lymphocytes 18.8%, Monocytes 9.1%, Eosinophils 4.9%, Basophils 1%
Smear: Hypochromic RBCs with anisiocytosis

AST: 16
ALT: 11
T Bili: 0.4, **D Bili:** 0.1
Alkaline Phosphatase: 39
Lipase: 31
Amylase: 71

Commented [HE5]: This is perfectly documented as it is very relevant but author didn't personally repeat so made that clear.

Commented [HE6]: Would be better if mentioned what areas specifically tested

Commented [HE7]: Note the labs are appropriately in the lab section and not in the HPI



Imaging:

None

Assessment/Plan:

Mr. KC is a 71 year old male admitted for stabilization and workup of chronic, hypochromic, microcytic anemia that is most likely due to chronic blood loss due to a bleeding peptic ulcer given his history of melena and frequent NSAID use. However, colorectal carcinoma remains a possibility given his recent history of weight loss, age, occasional bright red blood per rectum, and lack of previous screening colonoscopy.

Commented [HE8]: This is a very good summary statement and could have stopped at this point and addressed the ddx below.

1) **Hypochromic, Microcytic Anemia secondary to Gastric or Duodenal Ulcer**

Patient is severely anemic with a Hemoglobin of 6.8 and the immediate priority is to maintain the patient's hemodynamic stability. He appears to have minimal symptoms,dyspnea only on exertion, hence he likely has chronic blood loss, however he remains at high risk for hemodynamic instability if he continues to bleed. He has had vital sign stability, however current clinical guidelines recommend maintaining a hemoglobin level above 7mg/dL, even in stable patients.

Given that his anemia is hypochromic & microcytic, that he had previous episodes of gross melena, that he has frequent epigastric abdominal pain that is partially relieved by omeprazole, and that he recently taken NSAIDs multiple times a day, his anemia is likely due to slow, chronic blood loss from a gastric or duodenal ulcer. The negative occult blood test in the ED supports this assessment as it is less sensitive for upper vs lower GI bleeds. Based off of this history, the ulcer is likely secondary to NSAID use and not H Pylori, however final diagnosis cannot be made until an H Pylori test is done.

Commented [HE9]: Statements like these make it clear the author was reading about the case and using evidence to inform medical decision making. (The was no need for references or going into a lot of details s many students think they need to do to prove they are reading.)

Although an upper GI bleed is more likely given the negative occult blood test, NSAID use, and epigastric pain, colorectal carcinoma cannot be eliminated as a possibility, especially given his recent history of an 18 pound weight loss. It is less likely that colorectal carcinoma would lead to a weight loss this quickly, however it remains a possibility with his age, occasional history of bright red blood per rectum, and lack of history of a screening colonoscopy.

This is assuming that his microcytic anemia is due to iron deficiency, which is most likely due to very low MCV of 64.5. He does have a family history of myelodysplastic syndrome, which can present with isolated anemia, however the anemia is typically macrocytic or normocytic, which makes it unlikely in a patient with an MCV of 64.5 without other symptoms. Other causes of a microcytic anemia include anemia of chronic disease and thalassemia. Thalassemia is less likely due to his age and lack of target cells on peripheral smear. Anemia of chronic disease is unlikely given his absence of a known inflammatory state and typically would not lead to an MCV as low as 64.5.

This discussion is a little long but the thought processes are very easy to folllow and the differential is addressed in descending order of liklihood so the most time is devoted to the most likely diagnosis and the least likely diagnosis each just get a line. The plan below doesn't even

require explanation as it is obvious why the author is doing these things based on the discussion above.

- *Type & Cross 1 unit of packed rRBCs*
- *Administer 1 unit of pRBCs*
- *NPO in event urgent intervention is needed*
- *GI consult for EGD and colonoscopy and h.pylori testing*
- *Omeprazole 80mg PO today, 40mg PO qd moving forward*
- *Iron Panel and Ferritin Level*
- *Ferrous Gluconate, 325mg, qd*

2) **Hypothyroid with chronic fatigue**

The patient's chronic fatigue is most likely due to anemia as stated above, however hypothyroidism could further complicate his fatigue. We will order a TSH and free T4 to further evaluate.

- *TSH & Free T4*

3) **Osteoarthritis**

The patient's knee pain is most likely due to osteoarthritis given that the patient is obese, the pain is worse with activity, better with rest, without morning stiffness, and relieved with NSAIDs. Although this is not the primary reason for hospitalization, we will have physical therapy evaluate and treat the patient. In addition to physical therapy, we will order acetaminophen 650mg q6 PRN for pain. The patient is highly motivated to work with physical therapy while he is admitted and he now understands why he must taken acetaminophen over NSAIDs for pain.

- *Physical Therapy*
- *Acetaminophen 650mg q6 PRN for Pain*

4) **Skin Lesion, Likely Melanoma**

A brown, multicolored, 1.2 cm macular lesion with an irregular border was noted on physical exam. The lesion is concerning for melanoma given that is has may of the concerning characteristics, symmetry, irregular border, multicolored, and diameter greater than 6mm. He does not report previous history of any forms of skin cancer and was not aware that it was there. We discussed the lesion with the patient and he wants to have it evaluated, however he would rather address it after he leaves the hospital. We will place a photograph of the lesion in his chart and place an urgent referral to dermatology on discharge.

- *Photograph in chart*
- *Urgent dermatology referral upon discharge*

The remaining medical problems needed to be included because something was being done about them in the hospital but they aren't the priority so the discussions are appropriately focused.

This write-up would earn a "9"