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Hematology Second Opinion - Full Chart Review

Date: 2022-08-31

Patient: Jane Doe

Discussion:

Jane Doe is a 70 year old woman with unknown past medical history requesting second opinion regarding the symptoms noted below, she provides the following history and a battery of lab tests done over the past 6 months to review

Summary of symptoms provided:

I am extremely weak with increasing pain and inability to function or think clearly. I was a successful psychotherapist with a large private practice just two years ago. But now, I am totally wheelchair bound with no ability to get in or out of bed, turn-over, wash or shower, or use the bathroom without total help. I can no longer write or read effectively because of pain. When I was diagnosed with giant cell Arteritis nearly 3 years ago, 60 mg of Prednisone was prescribed daily which adversely effected my health (the devil's drug related to my Osteoperosis and other health issues. Starting in 2006 I took Forteo for nearly 2 years. Stopped using it but restarted it's use for 4 months in 2015. Discontinued its use again until restarting 2 months ago even though Forteo may cause Cancer or Osteosarcoma. I am concerned about my rapid deterioration and the severe bone pain and cracking noises does not respond to pain medication. My CEA and Chromiagranin A levels are elevated along with other abnormal blood work. The major issue has been my wasting without accompanying weight loss over the last several months. I went from a woman looking 30 years younger than my age to one appearing 50 years older exhibiting all the characteristics of Cachexia. I feel like my body is floating inside and crushing me so quickly. I need a Second opinion without coined or boiler plate terminology such as "age appropriate". Give special attention to analyze the urine and blood electrophoresis.

I have had a Tonsilectomy, Apendectomy, hernia repair, Histerectomy, Spleenectomy, Adrenalectomy (none were malignant). All were performed 5-7 years or more later...

Meds being used:

Forteo - standard dosage
Ranitidine - 150 mg daily
Levothyroxine - 50 mcg daily
Prednisone - 5 mg daily

Atenolol- 12.5 mg daily

Summary of information provided:

6/12/2015 calcitonin <2, CA 19-9 19, chromogranin A 35, gastrin/somatostatin wnl,

2/2016 WBC 12.7, Hgb 12.8, Platelets 354, ESR 24, ferritin 15, folate/b12 wnl, CMP wnl except albumin 3.0, TSH wnl, CRP 7.7, , CEA 12.3, light chain ratio 1.21,

5/27/16 WBC 10.2, Hgb 12.7, MCV 95, Platelets 389, ESR 11, LDH 173, CRP 2.7, Vitamin D 48.5, Albumin 4.2, Globulin 2.6, Calcium 9.5, quantitative immunoglobulins within normal limits, IFE negative vo gammopathy, SPEP wnl, free light chains : Free kappa light chains 18, FLLC 15.92, ratio 1.15

6/6/16 CBC WBC 12.8, Hgb 12.2, MCV 93, Platelets 372, total protein 6.7, Albumin 3.0, CEA 13.5

6/15/2016 ferritin 26, iron 96, TIBC 292, CMP wnl Albumin 3.8, globulin 2.5

7/7/16 WBC 15.7, Hgb 12.6, MCV 96, Platelets 369, ANC 12.7, BMP wnl except Cr 1.08

7/18/2016 PTH 11
7/29/2016 UPEP no monoclonal light chains
urinalysis wnl
8/5/2016 ESR 14, CRP 9, procollagen intact N terminal peptide 112, CMP normal,
quantitative immunoglobulins within normal limits

SPEP : possible small monoclonal gammopathy with IFE showing monoclonal gammopathy IgG kappa type

A review of the patient's lab work thus far gives no specific diagnosis. This is complicated by the fact that much of the workup has been done in piecemeal fashion.

Based on labs alone, this does not appear to be multiple myeloma. The diagnosis of multiple myeloma usually requires some combination of the following: a significant M (monoclonal spike), a change in the light chain

ratio, reciprocal suppression of uninvolved immunoglobulins, and elements of the CRAB criteria. While the patient has a small monoclonal gammopathy of the IgG kappa type, the kappa/lambda ratio has not been changed in any significant way. In addition, immunoglobulin levels remain in the normal range (we would expect IgG to be highly elevated with the rest of the immunoglobulins suppressed). Finally, the patient does not have hypercalcemia, evolving renal dysfunction, anemia, or bone lesions. It should be noted that no skeletal survey has been provided. A definitive way to rule out multiple myeloma would be via bone marrow biopsy to evaluate for plasma cell involvement. It is unclear if this has been done or not based on provided documentation. Based on the data provided, the labs suggest MGUS (monoclonal gammopathy of undetermined significance) rather than multiple myeloma. MGUS would not be expected to cause any of the symptoms that the patient describes.

With regard to the elevated CEA, the CEA can be elevated in a variety of tumor types such as lung cancer and tumors of the gastrointestinal tract. It can also, however, be elevated at baseline in healthy individuals. The CEA should be requested in patients with a high suspicion for malignancy. If there remains a high suspicion for malignancy in this patient, age appropriate workup with colonoscopy, endoscopy should be done. In addition, as I do not see it in the provided documentation and the patient's weakness, cachexia are thus far unexplained, I would recommend a CT scan of the chest, abdomen, and pelvis if not already performed.

Elevated serum chromogranin levels are most often associated with neuroendocrine tumors such as carcinoid tumors. Again, CT imaging can be done to evaluate for the presence of tumors, and endoscopy/colonoscopy can be done to evaluate the gastrointestinal tract for GI carcinoid. Carcinoid tumors are classically associated with flushing, wheezing, diarrhea, and valvular abnormalities that the patient is not describing. Occasionally carcinoid syndrome can cause pellagra (deficiency of niacin) due to consumption of tryptophan. Signs and symptoms of this are include changes in skin and hair, diarrhea, memory changes, mood changes. Nicotinamide supplementation can be given in this case.

Finally, the patient has some protein in her urine, but there are no monoclonal proteins seen on immunofixation. I would recommend a 24 hour urine collection to quantify the amount of protein being lost in the urine. If this is in the nephrotic range (excessive protein loss) perhaps a nephrology evaluation and/or a kidney biopsy could be performed to attempt to explain the etiology.

Recommendations:

1) Consideration for CT imaging of the chest, abdomen, pelvis with contrast if not already done (or if carcinoid continues to be suspected octreotide scan in addition to CT imaging)

2) Consideration for GI workup with endoscopy, colonoscopy

3) 24 hour urine collection

4) Bone marrow biopsy if multiple myeloma continues to be high on the differential

5) Please reconsult as the results from the above return or if any other questions should arise

Electronically Signed by:, MD on 08/31/2022 05:39:59 AM

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