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Internal Medicine Second Opinion - Full Chart Review

Date: 2022-08-24

Patient: John Doe

Discussion:

The requestor is requesting a review of a case from 5/2014 for patient John Doe .

At the time of the admission, John Doe was a 68 year old male with history of widely metastatic adenocarcinoma of the prostate, DM. He presented to KRH in early 5/2014 with complaints of refractory hypoglycemia, shortness of breath, and generalized weakness. According to chart provided, patient had progressive decrease in responsiveness and increasing oxygen requirements. The patient decompensated and was pronounced on 5/10/2014.

His autopsy report reads as follows:

Head: no metastatic tumors visible, no aneurysm.

heart: anomalous RCA, all three main arteries showing 50% occlusion due to atherosclerosis, but no recent thrombus

Lungs: bilateral serosanguinous effusions, lower lobe of the right lung showing lymphangitic carcinomatosis (adenocarcinoma of prostate origin), enlargement of mediastinal lymph nodes, and mets on the visceral and parietal pleura. also metastases on the ribs, thoracic spine. lung parenchyma shows marked edema consistent with terminal aspiration

Liver/spleen/pancreas: unremarkable

Prostate: completely replaced by tumor tissue, invading into overlying bladder and surrounding structures, lymph nodes

adrenals: bilateral adrenal nodules: adenocarcinoma with extensive replacement of medulla and cortex (Gleason 7)

5/10/2014 Death Certificate: cause of death aspiration pneumonia due to hypoglycemic episode secondary to metastatic prostate cancer

It is unclear to me if the patient had ever been treated for his metastatic prostate cancer and, if so, what the treatment history, timeframe, and rate of progression was. I do not see the standard treatments for metastatic prostate cancer listed in his admission medications (leuprolide, bicalutamide, etc) but this may be because these are usually administered at an oncology or urology clinic.

The patient\'s respiratory distress can certainly be attributed to lymphangitic spread of prostate cancer which can cause impairment of oxygen exchange and subsequent respiratory failure. In addition, there was evidence of aspiration pneumonia likely as a consequence of altered mental status due to hypoglycemia and an inability to adequately manage his oral secretions.

The patient\'s hypoglycemia may certainly be secondary to bilateral adrenal metastases with resultant adrenal crisis. Adrenal insufficiency can lead to hypotension, electrolyte abnormalities, hypoglycemia. This is due to the decrease in production of glucocorticoids and mineralocorticoids by the adrenal gland, in this case due to replacement of healthy tissue with prostate cancer. Additionally, the patient had a recent diagnosis of a urinary tract infection and may have been septic from this infection which can also lead to hypoglycemia.

Overall, the documentation provided supports a diagnosis of hypoglycemia secondary to adrenal insufficiency and perhaps sepsis with additional hypoxemic respiratory failure secondary to aspiration pneumonia and lymphangitic spread of prostate cancer.

Please respond with any specific questions you may have.

Recommendations:

N/A

Questions:

Please add the following to my consult and forward to the client:

At client/patient's request a repeat evaluation of blood glucose monitoring was done:

10 AM 10.6 ~ 190

2PM 4.4 ~ 80

5/7/14 6 PM 5.0 ~ 90 lists 5% dextrose started

5/8/14 8 AM 1.8 ~ 30

10 AM 5.0 90

2 PM illegible but appears to be 4.x ~80

6 PM 12.8 ~ 220

lists 10% dextrose started

5/9/14 8 AM 7.9 ~ 140

10 AM 5.7 ~ 100

6 PM 16.3 ~ 288

5/10/14 10 AM 6.4 ~ 120

6 PM 5.4 ~100

2 AM 4.8 ~ 90

Based on these findings, it appears on the day of presentation the patient was found to have blood glucose level of 0.8 (~ 15 mg/dL). Glucose was given and next check done at 10 AM and 2 pm, and 6 PM showing blood glucose in approximately the desire range. During this time patient was on a 5% dextrose solution. Subsequently no repeat glucose was checked until the day after admission and overnight it appears the patient had an acute drop in his blood glucose again to ~ 30 mg/dL. It is unclear when 10% dextrose solution was started, but following that that patient had no further hypoglycemic episodes and was monitored appropriately.

The patient's acute drop in glucose occurred during a 14 hour period between 6 PM on 5/7/14 and 8 AM on 5/8/14. It is unclear why the patient's glucose measurements were not done during this time period since the patient was admitted with chief complaint of hypoglycemia. Protocol in this case would have been close followup, at least every 4 hours to ensure no hyoglycemia were to occur. It is still unclear, however, whether this acute drop in blood sugar contributed to the ultimate outcome in this patient's case.

Electronically Signed by: MD on 08/24/2022 07:13:16 PM

Board Certified:

Internal Medicine

Hematology

Oncology