# 12/4/21 Morning Report with @CPSolvers

***Case Presenter***:*@MayoMN_IMRES* ***Case Discussants***: *@CPSolvers family :)*

**CC**: 41yo M w/ a hx of SCC of the larynx diagnosed 1 year ago s/p chemoradiation now presenting for 8 weeks of fevers.

**HPI**: P/w 8 weeks of recurrent cyclical fevers to 102F, fatigue, cough, night sweats, weakness and 10lb of unintentional weight loss. He had developed a sore throat 8 weeks ago and d/t his SCC hx of the larynx he underwent direct laryngoscopy w/ biopsy to evaluate for recurrence of malignancy. This demonstrated an ulcerated area but pathology was negative for malignancy. The fevers started a few days after his biopsy and he also developed stridor requiring hospitalization after the biopsy. He was placed on dexamethasone 4 mg daily for management of stridor and had been continued on it since then; any time he would try to stop it he said he felt awful. His only other medication was acetaminophen PRN.

**Social History**: Originally from Boston, Massachusetts but has lived in Minnesota for the last 10 years. He has never visited the SW United States.

**Health Related Behaviours:** Previously worked as a construction supervisor but has been on long-term disability since his cancer dx.He does have a healthy cat at home. He has a 20 pack year smoking history but quit at the time of SCC diagnosis 1 year ago. 1-2 alcoholic beverages each week and does not use any illicit drugs.

**Vitals**: **T**: febrile 39.13 **HR**:110 **BP**: 90/60 **$SpO_2$**: 98

**Exam**:

**Gen**: appeared ill but not in acute distress

**HEENT**: biopsy showing ulcerated lesion with tenderness in exam

**CV**: RRR, tachycardia

**Pulm**: dry crackles in the right base with no wheezes

**Abd: n**on tender soft with splenomegaly

**Neuro**: no FND, **Extremities/Skin**: no rashes or lesions

**Notable Labs & Imaging**:

**Hematology**: WBC: 1.3 Hgb:7.0, MCV 92 Plt: 70 Haptoglobin 96 , reticulocytes 0.75%, peripheral smear w/o hemolysis, no platelet clumping and no schistocytes. LDH 329 (high). Fibrinogen 177 (low) Ferritin 8700 (high)

**Chemistry**: Na:135 K3.4: Cl:102 CO2:20 BUN: 10 Cr:1.26 AST:27 ALT:51 Alk-P: 160 T. Bili:0.6 , HIV/CMV/Hep neg, Pneumo neg, Sputum PCR neg, blood urine & culture: neg Haptoglobin: 96, TSH 0.5, CRP 38.5, ESR 40, AM cortisol was obtained due to his hypotension & hyponatremia and was low at 3.7. Triglycerides 246

**Imaging**: CT neck neg for signs of recurrent neoplasm,10x7 mm soft tissue nodule along the right major fissure & mild ground glass opacities in the right middle lung.

**Micro:** Blastomyces ag was negative, cryptococcus Ag negative, coccidioides antigen POSITIVE, histoplasma urine and serum antigen POSITIVE

**Bone marrow biopsy:** slightly hypercellular bone marrow w prominent histiocytic infiltrate a/w budding yeasts w occasional hemophagocytic forms. Findings were c/w involvement by the patient's **disseminated histoplasmosis hx.**

**Final Dx: Hemophagocytic lymphohistiocytosis/ HLH**

**Treatment: Itraconazole for 1 year after a 10 day course of combined therapy with amphotericin B.**

**Problem Representation**:

ENG: 41yM w/ PMH of SCC s/p chemoradiation p/w 8w of fevers. Found to have oral ulcers and pancytopenia. Labs c/w HLH.

POR: Paciente c/ histórico de carcinoma de células escamosas pós quimio apresentando-se com febre, pancitopenia. Ao EF com esplenomegalia e úlceras bucais.

**Teaching Points (Andrea)**:

- Cancer patient with chronic fever:
- D Dx - Fever of Unknown Origin (FUO) IMADE mnemonic: Infection (Brusella, coxiella, blastomyces, melioidosis, tick borne illness), Malignancy, Autoimmune (Rheumatologic), Drug-induced and Everything else
- Fever:, TEV (more acute)
- Look for treatment given:
- 4WS: who, what is the syndrome, when, where
- CT scan while ID labs are being taken.
- Type B systompes: malignancy vs ID
- Pancytopenia: HLH secondary to infection, related to treatment
- Immunosuppressed: TB, MAC,
- Lung disease + splenomegaly: lymphoma (but tends to spare the lung), infections
- Before sending something to pathology be sure they already do not have other tissue
- Cocci and histo have cross reactivity in antigenic tests
- HLH: 9 criteria fever, splenomegaly, citopenia, hiperTriGliceridemia, hypofibrinogenemia, elevated ferritin, hemophagocytosis in spleen and node, low natural killer, elevated IL 2, ferritin greater than 500
- Low BP: think about hypoadrenalism