A Case of Hepatitis B Virus- Associated Polyarteritis Nodosa

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Introduction

- Polyarteritis Nodosa (PAN) is a necrotizing medium-sized vasculitis.
- It is a rare disease with prevalence as low as ~ 2 to 30 per million persons [3,4].
- Prevalence has decreased with the reduction of Hepatitis B infection and vaccination.
- The diagnosis is commonly seen in males, with higher incidence in their 6th decade of life[1,2].
- PAN is a clinical diagnosis making initial diagnosis and treatment challenging. In this case report we demonstrate a rather unusual presentation of symptoms and clinical findings, while excluding diseases that can mimic PAN.

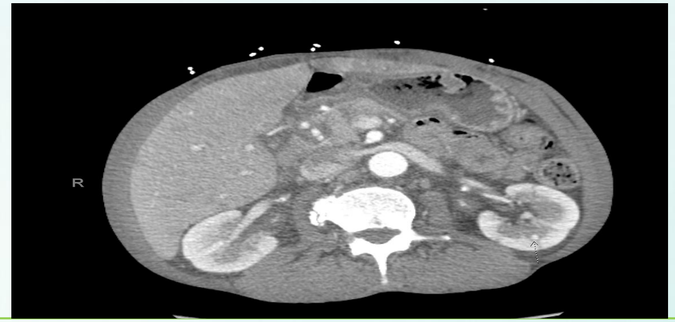
Initial work up

- positive ANA of 1:80 homogenous with negative subsets
- Patient had a positive HBcAB, with a viral load of 209 million.
- IgG kappa monoclonal protein.
- Negative labs: RF, CCP ab, cryoglobulin, HIV, and RPR.
- Normal labs: B12, folate, and uric acid level.

Case Presentation

- A 64-year-old male
- PMHx: of gout, hypertension, and osteoarthritis
- CC: worsening b/l hand and feet pain, numbness, weakness ,acute right foot drop, and unintentional weight loss over a period of weeks.
- Initially evaluated by neurology, for possible paraneoplastic process vs. autoimmune associated neuropathy.
- He was subsequently treated with 5 days of IVIG, with little improvement of his symptoms.
- LP, was largely unrevealing except for mild elevation in protein.
- A CT chest demonstrated a 3 cm RLL mass, with subsequent biopsy consistent with chondroid hamartoma.
- A CT A/P showed multiple lesions in the liver and pancreas concerning for metastatic disease.
- The patient underwent a EUS with FNA of a pancreatic lesion, with cytology that was non diagnostic, with a normal CA 19-9 level.
- CT A/P was also noted multiple tiny aneurysms in the liver, spleen, kidney and RUQ mesenteric vasculature, concerning for PAN or other vasculitic process.
- Given concern for PAN in the setting of active HBV infection, a right sural nerve biopsy was completed, but was non diagnostic.
- The patient was empirically treated for suspected HBV associated PAN with a short course of steroids, tenofovir, and plasmapheresis for viral load clearance.
- The patient reported improvement of his severe peripheral neuropathy and weakness with treatment and discharged to rehab.

CT imaging concerning for aneurysms



Case discussion

- This case demonstrates the challenges of diagnosing PAN in patients presenting with a constellation of symptoms and clinical findings suggestive of alternative etiologies.
- In patients with hepatitis B infection and CT imaging concerning for aneurysms in the mesenteric vasculature, PAN should be considered[1,2,5].
- With the increase in clinical suspicion for HBV associated PAN and detrimental outcomes if not treated, providers may consider initiating treatment even if the biopsy is not diagnostic

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