

Introduction

An estimated 38 to 55 per million adults per year are diagnosed with small vessel vasculitis every year.

Etiologies range from medications and infections to malignancies. A new category within the infectious etiology includes COVID 19 infection.

Case Presentation

A 71 year old African American woman with a recent history of COVID presents with one month of fatigue and worsening shortness of breath. Notices decreased urinary production and increased lower extremity swelling for two months.

Her initial workup Creatinine level of 8.8.

Her last known normal 6 months ago Cr 1.2

Protein/Creatinine ratio 8g Urine Protein per day

Nephrology consulted and started dialysis. During this stay she developed an Internal Jugular Thrombosis near her dialysis catheter, then started on heparin infusion, but unfortunately developed hemoptysis from diffuse alveolar hemorrhage.

Serologic tests were including Hepatitis B, Hepatitis C, HIV, Complement C3, C4, Glomerular membrane antibody, Anti-Jo, Anti-SSA, Anti-SSB, SCL-70, Anti RNP and Smith which were all negative. ANCA IgG antibody was indeterminate.

This case highlights our patient presenting with acute renal failure and proteinuria. She was found to have Pauci Immune Glomerulonephritis due to MPO ANCA vasculitis a month after diagnosed with COVID-19.

Alveolar hemorrhage secondary to granulomatosis with polyangiitis coexisting with COVID-19 infection.

This is a small vessel vasculitis that has a broad range of clinical manifestation ranging from limited disease to life threatening situation.

Conclusion

This case report highlights the gravity of COVID-19 complications even after acute infection is resolved.

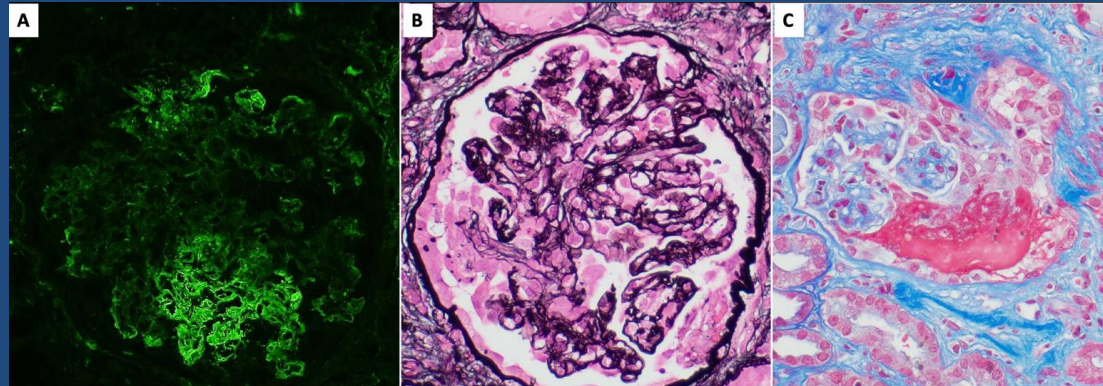


Figure: A. Immunofluorescence microscopy shows 2+ segmental glomerular tuft staining for fibrinogen.

Figure B. Glomerulus contains a segmental cellular crescent with glomerular rupture basement membrane (Jones methenamine silver, original magnification x400).

Figure C. Segmental cellular crescent with fibrinoid necrosis (Trichrome, original magnification x400).