DIFFUSE ALVEOLAR HEMORRHAGE IN A PATIENT WITH HEPATITIS C-ASSOCIATED MIXED CRYOGLOBULINEMIA AND MPO-ANCA POSITIVE FOCAL SEGMENTAL NECROTIZING GLOMERULONEPHRITIS.

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The principal renal manifestation of hepatitis C virus (HCV) infection is MPGN, usually in the context of cryoglobulinemia.

A 42-year-old woman was diagnosed in 2002 with HCV-associated MC. In 2004, she presented with signs of uremia (BUN; 49 mg/dl, creatinine; 5.1 mg/dl) and 10 grams of proteinuria with out any casts on urinalysis. Hemodialysis was initiated with the presumptive diagnosis of RPGN. The serological work up was significant for presence of cryoglobulins and MPO-ANCA (>100U/ml). The renal biopsy showed focal segmental necrotizing glomerulonephritis, with immune complexes along the GBM and within the mesangium. EM showed subendothelial deposits. The changes typical for MPGN were not seen but the presence of immune deposits suggested HCV-associated MC as underlying cause of renal failure. She was treated with high dose steroids and offered peginterferon alfa and ribavirin therapy, but she refused it. The patient never recovered independent kidney functions. In 2006, the patient was admitted with hemoptysis and dyspnea. The X-ray and CT scan of chest was suggestive of alveolar hemorrhage. She was started on high dose steroids (day 3) and daily plasmapheresis (day 4). Her breathing improved significantly along with gradual resolution of alveolar infiltrates after seven cycles of plasmapheresis.

To our knowledge, our patient is the first reported case of HCV-associated MC with MPO-ANCA, and immune complex RPGN who subsequently developed diffuse alveolar hemorrhage, and responded well to high dose steroids and plamapheresis. The presence of MPO-ANCA in HCV-associated MC is rarely described in the literature, and one would expect a pauci-immune renal disease with positive ANCA, but she presented with mesangial, subendothelial, and subepithelial immune complexes. Lastly, association between HCV-associated MC and diffuse alveolar hemorrhage is very rare. The mixed picture in this case is possibly secondary to unusual association of HCV-associated MC and presence of ANCA.