

Intraglomerular lipidosis following acute kidney injury in a patient with severe pylephlebitis

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Introduction: Intraglomerular lipidosis characterized with intraglomerular lipid deposition is known to be caused by disturbance in lipid metabolism. We report a case of intraglomerular lipidosis following acute kidney injury (AKI) in a patient who presented with extensive venous thrombosis.

Case presentation: A previously healthy 54-year old Korean male presenting with fever and abdominal pain was treated under the impression of enteritis, but abdominal pain persisted for 4 days. Abdominal computed tomography (CT) revealed superior mesenteric vein (SMV) thrombus and warfarin was initiated. Although both anti-cardiolipin antibody immunoglobulin G and M were positive, anti-phospholipid antibody was negative. Follow-up abdomen CT showed decreased extent of SMV thrombosis, but increased extent of thrombosis in main portal vein and both portal veins, along with increased ascites, persistent hepatosplenomegaly and lymphadenopathy, and pericardial and bilateral pleural effusion. Blood culture showed polymicrobial bacteremia. Initial serum creatinine (Cr) was 2.05 mg/dL and lipid profile were normal. Based on diffuse metabolic uptakes found in positron emission tomography (PET), reactive changes of infection or benign inflammatory diseases such as autoimmune diseases were suspected. Kidney biopsy performed when serum Cr decreased to 1.3 mg/dL revealed intraglomerular lipidosis involving 25% of glomeruli. Anticoagulation and 12 weeks of antibiotic treatment were planned. The patient improved after 6 weeks of anticoagulation and antibiotic treatment. AKI also improved with resolving proteinuria and microscopic hematuria.

Conclusion: Intraglomerular lipidosis may be accompanied with AKI in systemic inflammatory condition without lipid disorder such as pylephlebitis. Appropriate treatment for the underlying disease seems to improve renal outcome in this rare disease.

