Membranoproliferative glomerulonephritis and severe acute tubular necrosis in pulmonary tuberculosis

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Case Study: Abstract
Membranoproliferative glomerulonephritis (MPGN) is an uncommon glomerular disorder that occurred secondary causes, including viruses, autoimmune diseases, and paraproteins. A 78-year-old man was diagnosed with pulmonary tuberculosis infection and was treated with isoniazid, rifampin and ethambutol in 2 months ago. He visited our hospital because of leg edema and weight gain in 1 week ago. Laboratory evaluation on admission revealed proteinuria 25.3 g/day, blood urea nitrogen 54 mg/dL, serum creatinine 4.4 mg/dL, serum albumin 1.85 g/dL, urine protein 4+, RBC 3+, indicating nephrotic syndrome with acute kidney injury. His urine output was decreased therefore, he underwent hemodialysis therapy for 6 days. His urine output was increased and renal function was improved gradually. Percutaneous renal biopsy revealed membranoproliferative glomerulonephritis type I and severe tubular necrosis. The patient's condition improved with resolution of symptoms. Our case suggests the MPGN with acute tubular necrosis should be considered in tuberculosis elderly patients with nephrotic syndrome.