Oxalate Nephropathy: A Case of Acute Renal Failure from Chronic Pancreatitis

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BACKGROUND

Acute oxalate nephropathy (AON) is a rare form of secondary enteric hyperoxaluria that can result in renal failure.

METHODS

A 78 year old white male presented with an elevated creatinine from a baseline of 1.8 mg/dL. He has a history of acute gallstone pancreatitis with necrosis and pseudocysts; acquired diabetes; hypertension; and carcinoid tumor of the appendix status-post resection 5 years prior. He was complaining of chronic explosive watery diarrhea for 2 months associated with a 70 lb weight loss over 12 months. Physical exam was significant for mild abdominal distension and no fluid wave, and non-blanching purpuritic rash on the bilateral lower extremities. Urinalysis was unremarkable. Serologic studies revealed a creatinine of 4.98 mg/dL, cystatin C of 3.1 mg/L, phosphate 6.1 mEq/L, total calcium 8.5 mg/dL. Monoclonal spike of 0.59 g was found on serum protein electrophoresis with kappa/lambda serum free light chain ratio of 2.15. CT of the abdomen and pelvis showed pancreatic calcifications, but was otherwise negative. Renal biopsy showed diffuse oxalate crystals with associated tubular damage, AIN with scattered eosinophils, 30% interstitial fibrosis and tubular atrophy, moderate hypertensive nephrosclerosis. Additionally, basement membrane thickening and mesangial expansion was found. Immunofluorescence was negative for kappa or lambda light chains or IgG4. Congo red stain was negative. Bone marrow biopsy showed plasma cell dyscrasia (5% plasma cells), and a small population of monoclonal B-cells (1.5% by flow cytometry). The patient was treated with pancrelipase enzyme replacement with improvement of his diarrhea. His creatinine stabilized to ~ 4.

CONCLUSION

Case series of acute oxalate nephropathy with pancreatic insufficiency have been described. Here we describe a case of unknown exocrine pancreatic insufficiency where the diagnosis of oxalate nephropathy lead to alternative treatment of his pancreatic disease.