A Case of Idiopathic Fibrillary Glomerulonephritis in a US Military Veteran

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Introduction

Fibrillary Glomerulonephritis (FGN) is a rare medical condition first reported by Rosenmann and Eliakim in 1977. The reported incidence of this disease has ranged from 0.6-1.5% of native kidney biopsies and has previously been associated with malignancy, autoimmune disease, infection and dysproteinemia. Here we report a case of FGN in a patient with stage 3 chronic kidney disease and type 2 diabetes mellitus.

Clinical Image

A 51-year-old Caucasian male with stage 3 chronic kidney disease, type 2 diabetes mellitus, hypertension, hyperlipidemia, nephrolithiasis, 50 pack year smoking history, and significant atherosclerosis and IF was originally evaluated for 3 months of microscopic hematuria and 1 gm proteinuria daily. Given that our patient’s initial symptoms were suggestive of a glomerulopathy a renal biopsy was performed and examined under light microscopy revealing Congo red-negative fibril deposits amongst renal glomerulas well as mesangial expansion and moth-eaten appearance on silver stain. Additional immunofluorescence of the tissue demonstrated smudgy, granular, mesangial and focal capillary loop staining for IgG, C3, Kappa and Lambda specifically. Formal diagnosis was concluded with electron microscopy showing numerous non-branching, randomly oriented fibrils within the intramembranous portion of the capillary wall and within the mesangial matrix. These finding were consistent with FGN and patient subsequently underwent an extensive workup for associated disease processes but was found to have negative serology for ANA, rheumatoid factor, anti-GBM antibodies, ANCA, hepatitis B, hepatitis C, SPEP, UPEP, cryoglobulins and HIV with normal complements. Oncology was consulted for an evaluation of malignancy, to include both colonoscopy and serum analysis, which to date has remained negative. Patient continues to receive follow up for his chronic kidney disease and is being monitored closely secondary to his increased risk for developing associated malignancy (most commonly leukemia and multiple myeloma) and/or autoimmune disease (including Systemic Lupus Erythematosus). After speaking with patient and discussing possible treatment options the decision to withold immunosuppressive therapy was made due to the chronicity of patient’s current disease.

Discussion

Fibrillary Glomerulonephritis is a rare disease that has primarily been reported as idiopathic and with most information regarding associated pathologies obtained via individual case reports. Therefore we believe it is important to identify and report known cases of FGN along with associated disease states (or lack thereof) in order to build a larger fund of knowledge for future research. This particular case demonstrates a clear example of diagnosed FGN in which no currently known associations have been identified.