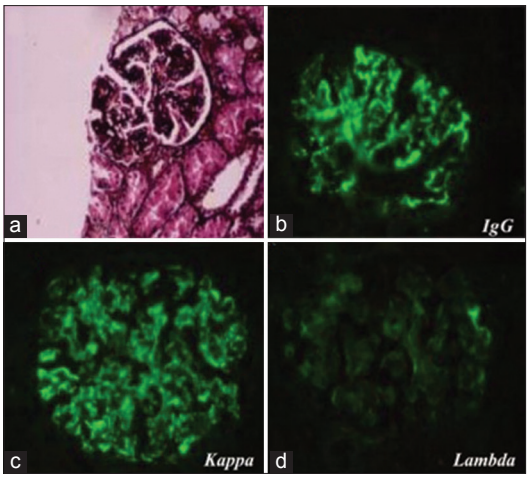

Figure 1: (a) Light microscopy suggestive of proliferative glomerulonephritis (b-d) immunofluorescence showing a predominant IgG and kappa deposition

Glomerulonephritis with monoclonal IgG deposits

Sir,

We identified six cases with a pathological diagnosis of glomerulonephritis with monoclonal IgG deposits from over 200 renal biopsy samples performed at Sawai Man Singh Hospital, Jaipur, from June 2012 to January 2014. Of the six, five were males and one female. The mean age was 43 years. All of them presented with proteinuria, and two had nephrotic syndrome. Four patients each had renal insufficiency and microhematuria, while 3 had hypertension. Histological patterns were predominantly membranoproliferative (four) or diffuse proliferative (two), glomerulonephritis. Crescents were seen in two, which were predominantly fibrocellular with few scattered cellular crescents. Immunofluorescence demonstrated glomerular deposits staining for a single light chain isotype (kappa or lambda) and a single heavy chain (IgG) [Figure 1]. None of the biopsy stained for IgA, M or G in tubular basement membrane or interstitium. Due to lack of facilities, we were unable to perform electron microscopy. None of them had paraproteinemia. Serum cryoglobulin titers and complement levels were normal in all. Antinuclear antibody, hepatitis B surface antigen, anti-hepatitis B virus antibody and rheumatoid factor were negative. All of them were treated with immunosuppressants based on the renal functions and followed-up for six months. Two patients had complete remission, one maintained stable renal function and two progressed to end stage renal disease. None of the patients developed signs and symptoms of multiple myeloma during follow-up.

Glomerulonephritis with monoclonal IgG deposits is characterized by monoclonal deposits, which stain for single light chain isotype and single gamma subclass.[1] The differential diagnosis includes type 1 cryoglobulinemic glomerulonephritis, light- and heavy-chain amyloidosis, immunotactoid glomerulonephritis, fibrillary glomerulonephritis and proliferative glomerulonephritis with monoclonal immunoglobulin deposits (PGNMID). Electron microscopy and pathological review are mandatory to differentiate between these pathologies.[1,2]

While light microscopy and monoclonality on immunofluorescence are highly suggestive, electron microscopy is required to confirm the diagnosis[3] and differentiate it from immunotactoid or fibrillary glomerulonephritis.

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