Pathologically confirmed improved C3GN by MP-Pulse therapy

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Case Study: C3 glomerulopathy (C3GN) is a recently identified disease entity caused by dysregulation of the alternative complement pathway, and dense deposit disease (DDD) and C3glomerulonephritis (C3GN) are its components. Recent classification of MPGN is based on pathogenesis dividing MPGN into immunoglobulin-associated MPGN and complement-mediated C3GN and dense deposit disease (DDD). For the treatment of C3GN, conventional immunosuppressive agents such as corticosteroids, cytotoxic drugs have been tired and recently Eulizumab and Rituximab have been tried to inactivate immune complexes however data on the use of these recent drugs are limited to case reports.

We report the 16-year-old female patient who had been suffered from persistent proteinuria for 5 years diagnosed as C3GN by immunofluorescence and electron microscopy in second kidney biopsy, while the first renal biopsy revealed membranoproliferative glomerulonephritis(MPGN). We tried methylprednisolone pulse therapy 10 cycles, clinical findings, laboratory findings were normalized however we performed follow up renal biopsy was done to confirm improvement by pathologically. Light and electron microscope findings was much improved and showed neither subendothelial deposits nor mesangial interposition, however C3 deposition by IF showed no change.

As far as we know this is the first case report who showed clinical and pathological improvement by methylprednisolone pulse therapy without noticeable side effects in C3GN.