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## **Two cases of treated C1q nephropathy by MP-pulse therapy**

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### **Case Study:**

C1q nephropathy was described Jennette and Hippi in 1985, defined by characteristic deposition of C1q in the renal mesangium and the absence of clinical or immunological features of systemic lupus erythematosus(SLE). Exclusion criteria include type 1 membranoproliferative glomerulonephropathy (MPGN). The prevalence varies from 0.2 to 16% and seems to be higher in children. Often manifests as steroid resistant proteinuria or nephrotic syndrome. Light microscopic features are heterogeneous and include no glomerular lesions, focal segmental glomerulosclerosis (FSGS), and proliferative glomerulonephritis. Due to its not well understood pathophysiology and varies clinical presentation, there are no randomized controlled trials as yet. Mainstay of treatment includes corticosteroid, cyclophosphamide, cyclosporine-A, mycophenolate mofetil, tacrolimus, rituximab have been tried.

Case 1: The patient is a 5-year-old female, who had a history of coke colored gross hematuria 1 month ago, however laboratory findings on the day of biopsy revealed unremarkable with normal ASO and complement levels. Renal biopsy findings showed focal slight tubular atrophy and fibrosis with prominent mesangial C1q deposition by IF. After 4 cycles of MP-pulse, follow up renal biopsy done which revealed treated C1q nephropathy without deposition of C1 in the mesangium

Case 2: The patient is an 8-year-old male with persistent hematuria and proteinuria for 2 months. Laboratory findings are as follows: urine protein to creatinine ratio was 1,748, urinalysis showed protein 2+, occult blood 3+. Renal biopsy showed C1q nephropathy associated with 6% global sclerosis, 16% exhibit cellular or fibrocellular crescents and 16% segmental sclerosis. After 10 cycles of MP pulse therapy, urinalysis findings are as follows: protein-, occult blood -, spot urine to protein ratio was 0.03,Ccr was 139ml.min Follow up renal biopsy revealed treated C1q nephropathy.

As far as we know these are the first case report in Korea, which showed pathologically proven treated C1q nephropathy by MP pulse therapy.