

소수면역 반월상 사구체 신염환자의 치료 반응 및 치료 연관 합병증에 영향을 미치는 인자에 대한 분석

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Factors Associated with Treatment Response and Treatment Related Complications in Pauci-immune Crescentic Glomerulonephritis

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Aim: Although outcome of pauci-immune crescentic glomerulonephritis has been improved, it still causes rapid deterioration of renal function, resulting in high prevalence of end-stage renal disease and mortality. Implementation of immunosuppressive therapy is sometimes concerns of practitioners because of its effectiveness and treatment related complications. This study evaluated the factors associated with outcome of pauci-immune crescentic glomerulonephritis to guide immunosuppressive therapy.

Method: This study retrospectively evaluated clinical features of 70 biopsy proven pauci-immune crescentic glomerulonephritis patients between January 2001 and January 2013 at Seoul National University Hospital and Seoul National University Bundang Hospital. Treatment response (defined as withdrawal of dialysis or improvement of renal function by 50% of baseline data by 3 months after biopsy), patient survival, renal survival at end of follow up and factors associated with treatment related complications were analyzed. Chi square test and logistic regression analyses were conducted for outcome measure.

Results: Median age was 66 years and number of male patients was 36 (51.4%). Mean eGFR at presentation was 16.2 ml/min per 1.73m², initial hemodialysis was required for 39% of the subjects. 91% of the subjects were initially treated with steroid pulse therapy and 79% of them were prescribed with cyclophosphamide with steroid. Treatment response rate at 3 months after biopsy was 62.5%. Hemodialysis was required for 34% of the patients and 6% of patients died. By multivariate analysis adjusting for age, glomerular crescent, global sclerosis, baseline serum creatinine concentration $5 < \text{mg/dL}$ and cyclophosphamide use were significantly associated with treatment response by 3 months. After median follow up 28 months, kidney survival was 59.3% and patient survival rate was 75.7%. Leading cause of death was pneumonia (88%) followed by vasculitis related pulmonary hemorrhage (12%). Pneumonia developed in 25% of the patients treated with immunosuppressive medications. Initial severe kidney failure that demands hemodialysis was significant risk factor for patient survival.

Summary: This study shows that baseline serum creatinine concentration $5 < \text{mg/dL}$ and cyclophosphamide were associated better treatment response. However, given immunosuppressive therapy to patient with severe kidney failure at biopsy, risk of infection could be increased.

Key Words: 소수면역사구체신염, 치료 반응, 치료 합병증
Pauci immune GN, Response, Complication