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Division of Nephrology Department of Medicine¹ Samsung Medical Center
Sungkyunkwan University School of Medicine

Division of Rheumatology Department of Medicine² Samsung Medical Center
Sungkyunkwan University School of Medicine

Department of Pathology³ Samsung Medical Center Sungkyunkwan University School of Medicine

Department of Pathology⁴ Hallym University Sacred Heart Hospital Anyang

정혜원¹ · 오하영¹ · 김대중¹ · 김윤구¹ · 이정은¹ · 고은미² · 차훈석² · 서진원⁴ · 권기영³ · 허우성¹

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Hae Won Jung, M.D.¹, Ha Young Oh, M.D.¹, Dae Joong Kim, M.D.¹, Yoon-Goo Kim, M.D.¹

Jung Eun Lee, M.D.¹, Eun-Mi Koh, M.D.², Hoon-Suk Cha, M.D.²

Jinwon Seo, M.D., M.S.⁴, Kwon Gee-Young, M.D.³ and Wooseong Huh, M.D.¹

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Sungkyunkwan University School of Medicine

Division of Rheumatology Department of Medicine² Samsung Medical Center
Sungkyunkwan University School of Medicine

Department of Pathology³ Samsung Medical Center Sungkyunkwan University School of Medicine

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Background : Class IV lupus nephritis (LN) was reclassified as a global form (IV- G) or a segmental form (IV- S) according to the newly proposed classification system of the International Society of Nephrology/Renal Pathology Society (ISN/RPS). But several studies have failed to identify the different clinical outcomes between the IV- G lesions and IV- S lesions. We divided the class IV lesions into two groups in terms of severity of active lesions and compared the initial clinical manifestations and long- term outcome between the two groups.

Methods : From July 1995 to June 2006, 57 patients were diagnosed class IV LN (IV- S, 15; IV- G, 42) in ISN/RPS system. Mean follow- up period was 70 months. These patients were divided into two groups [severely active group (fibrinoid necrosis score ≥ 2 or cellular crescent score ≥ 2) and the other group]. Primary end points were defined as ESRD, or deterioration of renal function (an increase in serum creatinine of ≥ 0.3 mg/dL if the patient's initial serum creatinine < 2.0 mg/dL, ≥ 0.4 mg/dL if 2.0 to 5 mg/dL, ≥ 0.5 mg/dL if ≥ 5 mg/dL, or doubling of urinary protein amount at last follow- up).

Results : Sixteen patients were in severely active group (7 of 15 class IV- S, 46%; 9 of 42 class IV- G, 21%; $p=0.062$) and 41 patients the other group. Severely active group had higher initial serum creatinine level (1.68 ± 1.34 mg/dL vs 0.95 ± 0.32 mg/dL) and activity index (12.3 ± 2.4 vs 8.1 ± 2.7) and chronicity index (3.4 ± 3.1 vs 2.0 ± 1.9). Cumulative incidence of renal function deterioration or ESRD were higher in severely active group ($p=0.014$ by log rank test).

Conclusion : The two activity index composites (fibrinoid necrosis and cellular crescents) may be more significant prognostic factors than subclassification in LN class IV.

Key Words : Lupus Erythematosus, Systemic, Glomerulonephritis, Necrosis