

Pathologic Studies on Crescentic Glomerulonephritis

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Background: Crescentic glomerulonephritis is expressed pathologically by crescent formation in Bowman's capsule and clinically by rapidly progressive loss of renal function. The pathologic experience of crescentic glomerulonephritis in one institution was analyzed here.

Methods: We classified 26 cases of crescentic glomerulonephritis patients into 4 categories and reviewed the cases pathologically and clinically.

Results: We found no case with group I (anti-GBM disease), 6 cases in group II (immune complex glomerulonephritis) including 3 patients with IgA nephropathy, 2 patients with Henoch-Schöenlein purpura and 3 patients with acute poststreptococcal glomerulonephritis, 12 cases in group III (ANCA-associated glomerulonephritis) including 7 patients with microscopic polyangiitis, 4 patients with Wegener's granulomatosis and 1 patient with ANCA GN, and 6 cases in group IV (idiopathic crescentic glomerulonephritis). The mean ages of patients with group II, III, and IV were 32.0, 59.3 and 36.3 years old, respectively, and mean serum creatinine levels at the time of biopsy were measured as 9.1, 5.2, 8.8 mg/dL in each group. On light microscopic findings, the frequency of crescents in glomeruli was 64.4% in group II, 43.7% in group III, and 43.8% in group IV. The score of infiltration into tubules of inflammatory cells was 0.8 in group II, 0.4 in group III, and 1.0 in group IV and the score of interstitial fibrosis was 1.0 in group II, 0.8 in group III and 1.3 in group IV. The score of atherosclerosis was 1.4, 0.9 and 1.8 in each group.

Conclusion: We conclude that the precise diagnosis and classification of crescentic glomerulonephritis by an early renal biopsy and clinical assessments are important in the management of crescentic glomerulonephritis.