

단일기관에서 20년간 시행한 신생검 결과에서 신질환의 양상

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Patterns of Renal Disease in South Korea: A 20-year Review of a Single-center Renal Biopsy Database

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Background: Several registries and centers have reported the results of renal biopsies from different parts of the world. As there are few data regarding the epidemiology of glomerulonephritis (GN) in South Korea, we conducted this study of renal biopsy findings during the last 20 years in our center.

Methods: Data for 1054 patients who underwent renal biopsy at our center between 1992 and 2011 were collected retrospectively, including demographic data and renal syndrome at presentation. All kidney specimens were studied with light and immunofluorescent microscopy.

Results: There were 926 cases of native kidney biopsies and 128 cases of allograft kidneys. Pathologic results were categorized according to the ages of patients at the time of renal biopsy: ≤ 15 years (children), 16–59 years (adults) and ≥ 60 years (elderly). In cases of primary GN, the most frequent type of renal pathology in children was mesangial proliferative GN (MsPGN, 52.9%) followed by IgA nephropathy (IgAN, 23.5%) and minimal change disease (MCD, 11.8%). In adults, the most frequent type of renal pathology was MsPGN (34.5%) followed by IgA nephropathy (IgAN, 34.3%) and membranous proliferative GN (MPGN, 8.0%). In the elderly, the most frequent pathologic result was MsPGN (23.1%) followed by membranous GN (MGN, 17.9%), focal segmental global sclerosis (FSGS, 12.8%) and crescentic GN (10.3%). In allograft biopsies, the most frequent type of renal pathology in adults was acute cellular rejection (35.4%) followed by chronic rejection (21.9%) and transplant glomerulopathy (9.4%). In native kidney biopsies, the predominant presentation was asymptomatic urinary abnormalities (76.4%) followed by nephritic syndrome (17.1%) and acute kidney injury (AKI, 4.4%).

Conclusions: Among 1,054 renal biopsy specimens, MsPGN and IgAN were the most frequent biopsy-proven renal diseases. MGN was the third most common cause of primary glomerular disease, and lupus nephritis was the most common secondary glomerular disease. Our data contribute to the epidemiology of renal disease in South Korea.

Key Words: 사구체신염, 신생검, 역학

Glomerulonephritis, Kidney biopsy, Epidemiology

| Diagnoses | ≤ 15 years; N = 55 (%) | 16-59 years; N = 933 (%) | ≥ 60 years; N = 66 (%) |
|-----------------------|-----------------------------|--------------------------|-----------------------------|
| Proteinuria | 40.4 | 33.7 | 25.4 |
| Hematuria | 50.0 | 36.4 | 23.8 |
| Edema | 7.7 | 12.7 | 22.2 |
| Acute Kidney Injury | 0 | 3.6 | 20.6 |
| Chronic Kidney Injury | 0 | 0.2 | 1.6 |
| Hypokalemia | 0 | 0.3 | 0 |
| Allograft dysfunction | 1.9 | 12.6 | 6.4 |
| Purpura | 0 | 0.3 | 0 |
| Toxin | 0 | 0.2 | 0 |