Renal Pathological Diagnosis and Clinico-patholgical Correlation in Thai Systemic Sclerosis

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Background: Renal manifestation of systemic sclerosis (SSc) is important with different clinical outcomes. Renal biopsy information in SSc is limited.

Objective: This study aimed to evaluate clinical features and renal pathological diagnosis in Thai SSc.

Methods: A retrospective chart review was conducted in SSc patients with kidney biopsy from January 2005 to December 2016. The clinical manifestation, lab parameters and renal pathologic diagnosis were recorded.

Results: 29 SSc patients with 73% of diffuse cutaneous SSc were observed. The mean age was 63.2 ± 13.9 years and female was predominance (72%). The mean of SSc diagnosis duration was 3.72 ± 4.8 years. The clinical features at the time of renal biopsy were identified. 58.6 % of patients presented rapid progressive glomerulonephritis (RPGN), followed by 17.2 % nephrotic syndrome, and 10.3 % nephritis. The most common renal pathologic diagnosis was lupus nephritis (LN: 53.8%), followed by scleroderma renal crisis (SRC: 19.2%), IgA nephropathy (7.6%), IgM nephropathy (3.8%), membranoproliferative glomerulonephritis (MPGN: 3.8%), and progressive scleroderma renal involvement (7.6%). The nephrotic syndrome was major presentation among LN class V patients. In contrast, RPGN were common clinical diagnosis in both LN class IV and SRC. The dialysis rate of SSc patients was higher and age was younger in male relative to female.

Conclusion: This study reveals biopsy-confirmed cases of SSc patients with renal manifestations having various clinical and renal pathological characteristics. The LN is the most common disease. Male SSc patients have more disease severity than female. Further studies with data registry are required to investigate clinical and treatment outcomes.

Keywords: Systemic sclerosis, Scleroderma, Renal biopsy, Glomerular disease