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Glomerular disease

The Epidemiologic Study from On-line Glomerular Disease Registry in Thailand: A First Year Report

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Background: End stage renal disease (ESRD) cause the high morbidity, mortality, and cost in health care system. The prevention of chronic kidney disease/ESRD is the early recognition and appropriate treatment of the etiology disease. In 2013, Thailand Renal Replacement Therapy (TRT) reported that the glomerulonephritis (GN) was the third common cause of ESRD requiring renal replacement therapy (RRT). However, there is insufficiency in epidemiologic data and clinical outcomes of glomerular diseases in TRT. To report the epidemiologic data of glomerular diseases in Thailand.

Methods: We developed web-based of Thai Glomerular Disease Registry. The data of patients with GN were registered by the Glomerular Disease Collaborative Network (TGDCN) which is originally set up by 9 tertiary care institutions. GN patients with aged ≥ 18 years were included in this study. The epidemiologic variables for analysis were gender, age, education, native habitat and the laboratory tests including serum creatinine, albumin, cholesterol, urinalysis, proteinuria, serology tests and the pathological findings.

Results: There were 666 patients performed kidney biopsy during July 1, 2014 to Jun 30, 2015. The female to male ratio was 2.16:1. The mean age, creatinine, albumin, and cholesterol were 42 (18-82) years, 1.4 (0.4-13) mg/dL, 2.9 ± 0.8 g/dL, and 296 ± 118 mg/dL in respectively. The median proteinuria was 3.2 g/day and ranged 0-22 g/day. The clinical presentations of patients were nephrotic syndrome (34%), nephritis (22%), and nephrotic nephritis (21.7%), renal impairment defined as creatinine ≥ 1.2 mg/dL (52%), and new or aggravated hypertension (54.4%). The renal pathological findings showed lupus nephritis (LN; 38%), IgA nephropathy (IgAN; 17.6%), focal segmental glomerulosclerosis (FSGS; 9%), and membranous nephropathy (MN; 8.9%). The mean age of LN, IgAN, FSGS, and MN were 34, 38, 46, and 50 years. The averaged creatinine level at biopsy of LN, IgAN, FSGS, and MN were 1.9, 2.4, 2.4, and 1.1 mg/dL.

Conclusion: This is the first time that the glomerular registry has been developed in Thailand. This registry is a web-based, on line program. The most common clinical presentation of patients with glomerular disease in the first year of registry was new or aggravated hypertension. The most common pathological finding from kidney biopsy was lupus nephritis. The clinical outcomes of glomerular diseases will be further studied from this registry.

Key words: glomerular disease, glomerulonephritis, registry, nephrotic syndrome