

## Original Article

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# Outcome of lupus nephritis – A 5-year analysis

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**Objective:** To investigate the long-term outcome of class IV lupus nephritis (LN) and to analyze its prognostic factors.

**Materials and Methods:** We performed a retrospective chart review study of 157 patients with LN between January 1986 and June 2004 in Chang Gung Memorial Hospital at Kaohsiung. All of these LN patients fulfilled the systemic lupus erythematosus classification criteria of the American College of Rheumatology and had histopathological findings of LN. Only those pathology-proved subjects with class IV by 2003 ISN/RPS classification were recruited. We reviewed the charts and collected the demographic data, serological parameters, and treatment courses of subjects recruited. The end point of renal outcome were doubling of serum creatinine (I) and end stage renal disease (ESRD)/death (II) within 60 months after renal biopsy

**Results:** A total of 75 subjects were recruited, including 13 male and 62 female. Mean age was  $25.9 \pm 9.7$  year. Five years after renal biopsy, 16 subjects (21.3%) developed outcome I and 15 subjects (20.0%) developed outcome II. Those who did not develop outcome I had higher mean ( $14.5 \pm 2.1$ ) activity index (AI) than that ( $13.1 \pm 2.5$ ) of those did (HR = 0.55, CI = 0.35-0.87,  $p=0.01$ ). For those who did not develop outcome II, the mean AI was also higher than those who did ( $14.4 \pm 2.2$  vs.  $13.5 \pm 2.3$ , HR = 0.67, CI = 0.44-1.00,  $p=0.05$ ).

**Conclusions:** The 5-year renal survival of current series, in terms of ESRD/death, was 80% and this was not as favorable as those reported in the other investigations. High activity index at biopsy is a predictor of favorable prognosis of long-term renal outcomes in case that aggressive treatment had been given.

**Key words:** Lupus nephritis, prognosis, ISN/RPS classification

## Introduction

Systemic lupus erythematosus (SLE), an autoimmune

disorder which predominantly affects young women, is frequently complicated by renal involvement. Up to 60% of patients develop kidney involvement during the course of their disease [1,2]. A kidney biopsy in an SLE patient with any degree of clinical renal disease plays an important role in diagnosis and management has been illustrated [3,4]. It also has been demonstrated that long-term prognosis of lupus nephritis (LN) is related to the histopathological findings of renal biopsy [5,6]. So far, proliferative lupus nephritis remains a major cause of renal failure and mortality among patients with SLE [7,8]. In addition to histopathological findings, the

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