Lupus nephritis : clinical manifestations and risk factors

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Introduction:

Renal involvement is frequent in systemic lupus erythematosus (SLE). Our objective is to describe clinical features of lupus nephritis (LN) and its risk factors.

Patients and methods:

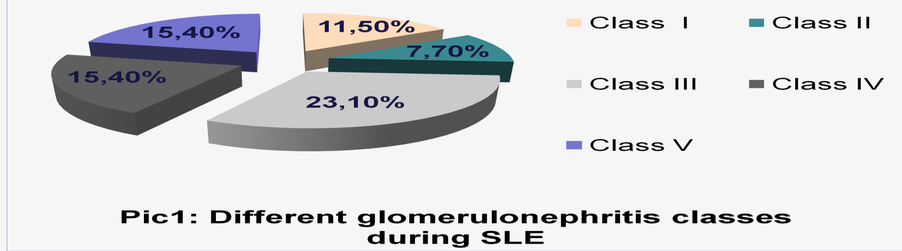
retrospective analysis of 89 medical records of patients diagnosed SLE according to the ACR criteria (mean age: 35.2 years and sex ratio F/M= 8/1).Patients with lupus nephritis (LN) were compared with those without lupus nephritis (WLN) to assess risk factors for renal involvement by univariate then multivariate analysis.

Results:

renal involvement was diagnosed in 26 patients (28.9%) (mean age= 31.6 years +/-12 years, sex ratio F/M= 4.2). Renal manifestations were described in (Tab1). Different glomerulonephritis classes were illustrated in (pic2). Comparative study between patients with LN and those WLN revealed the following risk factors (Tab2).

Renal manifestation	Results
Mean proteinuria level	2.74g/d
Nephritic syndrome	11 patients (42.3%)
Renal insufficiency	8 patients (30.76%)
Renal biopsy done	19 patients (73%)

Tab1: Renal manifestations during SLE



Pic1: Different glomerulonephritis classes during SLE

	OR	95 % CI	p
Oral ulceration	17.1	[2.55- 114.9]	0.003
Infectious complications	5.22	[1.14- 23.9]	0.033
C3 decrease	7.98	[1.97- 32.18]	0.004
Lymphopenia	16.1	[1.25- 207.9]	0.033

Tab2: LN risk factors

Discussion:

LN is one of the most frequent and severe manifestation of SLE. The renal biopsy remains crucial for the diagnosis and for the choice of therapeutic modalities. Some clinical and biological elements can predict NL while waiting for histological confirmation. Therefore, it allows an early management for patients and improves their long-term prognosis. Our study has shown some NL risk factors (Tab2) that have been described in the literature (1) in addition to young age, low C4, high anti-dsDNA, anti-Sm antibody, anti-RNP antibody titre, and higher disease activity scores. Further studies are required to search others indicators that may help clinicians to identify patients with higher risk of LN at time.

Conclusion:

LN is frequent in our cohort involving the third of our patients. Those with oral ulceration, infectious complications, C3 decrease and lymphopenia seem to be at high risk to develop LN needing therefore a close monitoring.

(1) Chan Kwon, Predicting eventual development of lupus nephritis at the time of diagnosis of lupus, *Seminars in Arthritis and Rheumatism, Feb 2018.*