FINDINGS OF RENAL BIOPSY IN LUPUS PATIENTS WITH LOW LEVELS OF PROTEINURIA

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To the Editor

Lupus nephritis is a feared complication of systemic lupus erythematosus (SLE) that occurs in approximately 60% of patients[1]. There are multiple histologic subtypes and the optimal treatment varies accordingly to them[2]. In order to identify the nephritis type, a renal biopsy is necessary, as clinical parameters have poor reliability. Besides establishing the exact diagnosis, renal biopsy will help decide when treatment is futile[1,2]. The degree of active or chronic changes helps determine the likelihood of response to treatment.

Although the ACR classification criteria for SLE defines nephritis as the presence of proteinuria over 500mg/day or cellular casts of any type, some clinicians only recommend biopsy when levels over 1.000mg/day of proteinuria are found[3]. This approach is based on the assumption that those with mild proteinuria and hematuria and normal creatinine have WHO class II disease[3]. Others advocate that biopsy should be done in patients with lower levels of proteinuria. Christopher-Stine et al[4] studying 21 patients with low level proteinuria found that 77% of their patients had a major form of nephritis.

We reviewed the charts of 353 lupus patients that attended our clinic from January 2004 to January 2010 and found 10 cases of renal biopsy done in patients with proteinuria under 1.0 g/day. These cases were analyzed to see if renal biopsy had any role in changing treatment. Clinical characteristics and histological individual findings of these 10 patients are shown in Table I.

We notice that at least 60% of patients had a diagnosis of class 3, 4 and 5 and needed therapeutic adjustments. The others had findings that did not require immunossupressive therapy (two with class 2 and two with renal disease not related to lupus).

Even though the present sample is small and do not allow drawing major conclusions, it clearly shows that patients with low levels of proteinuria may have significant renal disease. In this context an early indication for biopsy may provide early immunosupression and better prognosis.

Table I. Clinical and biopsy characteristics of lupus patients with low level of proteinuria

	Age	Anti DNA	Creatinine mg/dl	Complement C3	Complement C4	Hematuria (*)	Proteinuria /24h	HAS (**)	Renal biopsy
1	20	+	0.87	↓	↓	No	0.96	Yes	Class 4 (AI=7/24;CI=2/12)
2	37	-	0.83	N	N	No	0.71	No	Class 5
3	27	+	0.7	↓	↓	Yes	0.32	No	Class 4 (AI=5/24;CI=2/12)
4	43	+	0.88	↓	↓	Yes	0.45	Yes	Class 2B
5	46	-	1.58	↓	↓	Yes	0.17	Yes	Hypertensive glomerulosclerosis
6	58	-	1.04	N	N	Yes	0.43	No	IgA nephropaty
7	40	+	0.79	↓	↓	Yes	0.72	Yes	Class 4 (AI=14/24;CI=4/12)
8	32	-	0.58	↓	↓	Yes	0.81	No	Class 5
9	41	-	1.37	↓	↓	No	0.52	No	Class 2A
10	38	+	0.97	↓	↓	Yes	0.44	Yes	Class 3 (AI=3/24;CI=1/12)

(*)–hematuria = more than 5 red blood cells/high power field; (**)–HAS = levels equal or over 140 mm systolic and 90 diastolic blood pressure; AI= activity index; CI= chronicity index

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References

1. Beck LH Jr, Salant DJ. Treatment of membranous lupus nephritis: where are we now? J Am Soc Nephrol 2009; 20:690-691.
2. Waldman M, Appel GB. Update on the treatment of lupus nephritis. Kidney Int 2006; 70:1403-1412.
3. Salach RH, Cash JM. Managing lupus nephritis: algorithms for conservative use of renal biopsy. Cleve Clin J Med 1996;63;106-115.
4. Christopher-Stine L, Siedner M, Lin J, et al. Renal biopsy in lupus patients with low levels of proteinuria. J Rheumatol 2007; 34: 332-333.

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