

Dry eye in systemic lupus erythematosus patients

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Background:

Dry eye is one of the most common ophthalmologic disorders. It is unknown if the occurrence of dryness is associated with SLE activity or cumulative damage. We studied a cohort of lupus patients aiming to know if SLE disease activity or cumulative damage were linked to the presence of dry eye.

Methods:

Schirmer test was applied in 70 SLE patients disease activity was measured by SLEDAI (SLE-Disease activity index) and cumulative damage by SLICC/ACR (Systemic Lupus International Collaborating Clinics/American College of Rheumatology). Patients were also submitted to the OSDI (Ocular Surface Disease Index) questionnaire. Epidemiological and treatment data and autoantibody profile were extracted from the charts.

Results:

Dry eye by Schirmer test was present in 51.4% of the sample. No association of the presence of dry eye with SLEDAI and SLICC were found (p=ns) (Table 1). Subjective symptoms of dry eye measured by OSDI showed a modest correlation with SLEDAI (figure 1) (Spearman rho = 0.32). Treatment profile did not influence in the presence of dry eye that was more common in older patients (p<0.0001). Anti dsDNA had a negative association with the presence of positive Schirmer test.

TABLE 2 - COMPARISON OF SLE (SYSTEMIC LUPUS ERYTHEMATOSUS) PATIENTS WITH AND WITHOUT AT LEAST ONE DRY EYE ACCORDING TO THE SCHIRMER'S TEST.

	With at least 1 dry eye n=36	Without dry eye N=34	P
Median age (years) (IQR)	43.5 (38.0-57.7)	29.0 (22.0-40.2)	< 0.0001
Median age at disease onset (years) (IQR)	33.5 (25.2-42.5)	29.0 (22.0-40.2)	0.13
Sicca symptoms (**)	7/36 (19.4%)	6/34 (17.6%)	0.84
Median SLEDAI (IQR)	2 (0-4)	2.0 (0.-6)	0.75
Median OSDI (IQR)	14.6 (2.1-40.0)	17.8 (3.7-35.3)	0.82
Anti-Ro	11/36 (30.5%)	17/34 (50%)	0.09
Anti-La	3/36 (8.3%)	7/33 (21.2%)	0.17
Anti-cardiolipin IgG	6/36 (16.6%)	5/34 (14.7%)	1.00
Anti-cardiolipin IgM	3/36 (8.3%)	6/34 (17.6%)	0.29
Lupus anticoagulant	5/36 (13.8%)	4/34 (11.7%)	1.00
Anti-dsDNA	11/36 (30.5%)	21/34 (61.7%)	0.008 (*)
Anti-Sm	13/36 (36.1%)	10/34 (29.4%)	0.55

(*)-OR=3.67 (1.36-9.88); (**)- both dry eye and dry mouth.
IQR= interquartile range; OSDI= Ocular surface disease index; SLEDAI = SLE disease activity index; SLICC = SLE cumulative damage index.

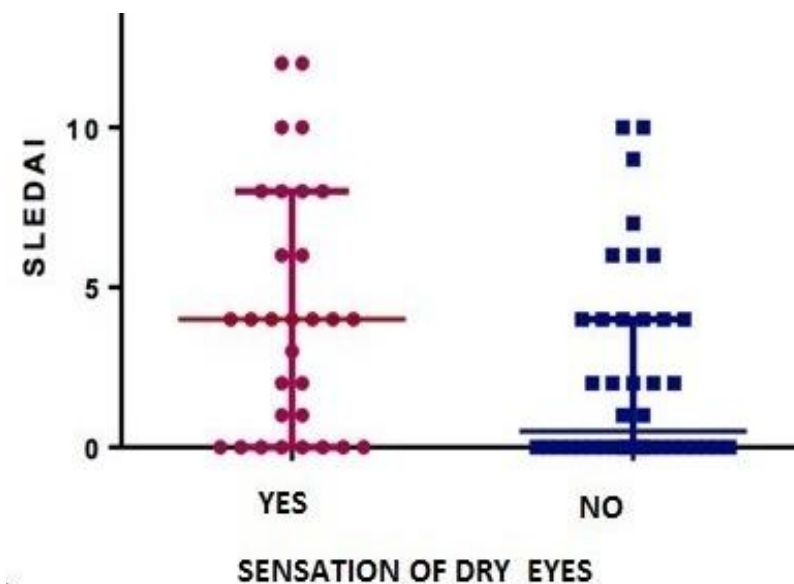


FIGURE 1- Median SLEDAI in patients with the feeling of dry eye was of 4.0 (IQR=0-8) and without it was of 0.5 (IQR=0 to 4) with p=0.03.

Conclusion:

Dry eye detected by Schirmer test in SLE patients has no association with disease activity nor cumulative damage. Anti dsDNA seems to have a protective effect in this context.

Reference:

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