ORIGINAL ARTICLE

OCULAR MANIFESTATIONS IN SYSTEMIC LUPUS ERYTHEMATUSUS

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ABSTRACT: BACKGROUND: Systemic Lupus Erythematosus is one of the common autoimmune diseases seen in young patients, predominantly affecting females. **OBJECTIVES:** The purpose of this prospective study is to determine ocular presentations in SLE **METHODS:** In this descriptive, prospective, observational, cross sectional study, all patients who presented to the department of dermatology during this study period of 12 months from January 2010-December 2010 in Belgaum Institute of Medical Sciences were included. **RESULTS:** Total number of females in the present study was 19(74%), males in the study was 6 (26%). Mean age of the patients was 26.2 ± 2.8 (SD) years, maximum age being 36 years and minimum age being 20 years, number of patients in the age group 20-25 years was 14 (56%), 26-30 years was 6 (24%), 30-35 years was 3 (12%), number of patients in 36-40 years was 2 (8%) Maximum number of patients was in their middle age between 20-25 years. Ocular symptoms in present study scelritis was seen in 8(32%) patients, episcelritis was seen in 10(40%) patients, conjunctivitis was seen in 5(20%) patients, ANA-positive was seen in 20 (80%) patients, episcelritis was seen in maximum number of patients i.e. 10 (40%). Distribution of ocular symptoms in present study between two eyes, scelritis was seen in 6(75%) in right eye, was seen in 2(25%) in left eye, scelritis was seen in 7(70%) in right eye, was seen in 3(30%) in left eye, conjunctivitis was seen in scelritis was seen in 2 (40%) in right eye, was seen in 3(60%) in left eye. Ocular symptoms and sex distribution, scelritis was seen in 6 (31.57%) patients in females, Episcelritis was seen in 8(42.10%) females, Conjunctivitis was seen in 5(26.31%) males, and ANA positivity was seen in 18 (72%) females. Scelritis was seen in 2 (33.33%) patients in males, Episcelritis was seen in 2 (33.33%) males, Conjunctivitis was not seen in males, and ANA positivity was seen in 2 (8%) males. P value of all ocular symptoms is insignificant. P-value being insignificant. **CONCLUSION:** There is significant percentage of patients who report with dermatological manifestations with SLE predominantly episcelritis.

KEYWORDS: Systemic Lupus Erythematosus, Episcelritis, Scelritis, Conjunctivitis, Anti-Nuclear Antibody.

INTRODUCTION: Lupus erythematosus (LE) is diagnosed and defined according to clinical and laboratory criteria. Patients with systemic LE (SLE) have manifestations outside the skin, and a high frequency of circulating antinuclear antibodies.[1] Patients with chronic cutaneous LE (CCLE) have scarring disease confined to the skin and rarely have circulating antinuclear antibodies.

In patients with SLE reports of surface ocular abnormalities are confined to passing references to a low incidence of conjunctivitis, episcleritis, or scleritis, and assessment of the incidence of sicca.[2-5]

MATERIALS & METHODS:

Study Design: Prospective, observational, cross sectional study

Sample Size: 25 cases over a span of 12 months from January 2010-December 2010 in Belgaum Institute of Medical Sciences were included.

Method of Collection of Data: The data for the purpose of the study was collected in a predesigned and pretested proforma which include various socioeconomic parameters like age, sex, occupation, religion, etc. About 25 cases were selected on the basis of the simple random sampling method. Patients who were diagnosed to be having SLE were recruited into our study group.

The statistically data was analyzed with the help of software SPSS.16.0, Questionnaires, physical, radiographic examination was done in all patients

Inclusion Criteria: All patients who were diagnosed to be having SLE using American Rheumatologic criteria with or without ocular features were recruited.

Exclusion Criteria: Patients who did not have SLE.

RESULTS: Table.1 Shows total number of females in the present study was 19 (74%), males in the study was 6 (26%). Mean age of the patients was 26.2 ± 2.8 (SD) years, maximum age being 36 years and minimum age being 20 years.

Table.2 Shows age distribution according to groups in present study, number of patients in the age group 20-25 years was 14 (56%), 26-30 years was 6 (24%), 30-35 years was 3 (12%), number of patients in 36-40 years was 2 (8%) Maximum number of patients was in their middle age between 20-25 years.

Table.3 showing distribution of ocular symptoms in present study, scelritis was seen in 8(32%) patients, episcelritis was seen in 10(40%) patients, conjunctivitis was seen in 5(20%) patients, ANA-positive was seen in 20 (80%) patients, episcelritis was seen in maximum number of patients i.e. 10 (40%).

Table.4 showing distribution of ocular symptoms in present study between two eyes, scelritis was seen in 6(75%) in right eye, was seen in 2(25%) in left eye, scelritis was seen in 7(70%) in right eye, was seen in 3(30%) in left eye, conjunctivitis was seen in scelritis was seen in 2 (40%) in right eye, was seen in 3(60%) in left eye.

Table.5 shows symptoms in different sex distribution. Scelritis was seen in 6 (31.57%) patients in females, Episcelritis was seen in 8(42.10%) females, Conjunctivitis was seen in 5(26.31%) males, and ANA positivity was seen in 18 (72%) females.

Scelritis was seen in 2 (33.33%) patients in males, Episcelritis was seen in 2 (33.33%) males, Conjunctivitis was not seen in males, and ANA positivity was seen in 2 (8%) males. P value of all ocular symptoms is insignificant.

DISCUSSION: This prospective, observational study titled "ocular manifestations in systemic lupus Erythematosus."

Previous reports date from 1907. The first report in English[1] (1932) describes three patients with conjunctival lesions and reviews reports of nine other patients, three with conjunctiva, four with lid, and two with both sites involved. Since then there have been occasional reports totalling eight patients with conjunctival[6,7] and 29 with lid[6,8-12] lesions thought to be related to associated lupus. It is not always possible to be sure if these are cases of SLE or CCLE. Five patients showed swelling of the lids associated with lupus profundus, and panniculitis was shown on facial skin biopsy.[9] Otherwise lid lesions were characterized by blepharitis with scaling, madarosis, and non-contractile scarring in some cases. In three cases20 the lid lesions were the only abnormality but proved to be typical of CCLE on biopsy. Conjunctival lesions have been described as circumscribed, red, oedematous, velvety areas on the upper or lower tarsal surface, which heal spontaneously or in response to systemic treatment, sometimes leaving atrophic depressed scars.[6,7] One of the study showed SLE patients had recurrent episcleritis in five out of 18 (28%) it was likely to be related to the underlying LE. One of the patient's presented with red eyes as first manifestation, progressing within months to joint and urticarial skin involvement with positive antinuclear antibodies and characteristic skin histopathology.

Our study shows there is predominance of ocular symptoms among the female subjects and the males being affected in lesser proportion, even though major symptom profile studied here is very limited and purely concentrated on the ocular manifestations. The number of patients included in our study is limited, but still this study shows a new ocular symptom profile. Since the manifestations seen may be a secondary manifestation to other systemic involvement because most of the patients in our study were CKD patients who needed better control of their blood pressure and were on multiple drugs. Further, randomised control studies will help in this regard to understand the ocular symptom and complication profile in these patient sub group.

Group	Number of patients	Percentage (%)
Females	19	76
males	6	24
Total	**25**	**100**

Table 1: Showing prevalence of present study

Age	Frequency	Percentage (%)
20-25	14	56
26-30	06	24
30-35	03	12
36-40	02	08
Total	**25**	**100**

Table 2 :Table showing age distribution according to groups in present study

Symptoms	Present	(%)
Scelritis	8	32
Episcelritis	10	40
conjunctivitis	5	20
ANA-positive	20	80

Table 3 : Table showing Ocular presentation according to groups in present study

Symptoms	Right eye	Left eye
Scelritis	6	2
Episcelritis	7	3
Conjunctivitis	2	3
Total	**15**	**8**

Table 4: showing distribution Ocular symptoms in different age groups

Symptoms	Females (n=19)	(%)	Males (n=6)	(%)	P value
Scelritis	6	31.57	2	33.33	0.65
Episcelritis	8	42.10	2	33.33	0.54
Conjunctivitis	5	26.31	0	0	0.29
ANA-positive	18	72	2	8	0.65

Table 5: showing distribution of symptoms in different age groups

LIST OF ABBREVIATIONS:

SD: standard deviation.
WHO: World Health Organization.
i.e.: That is.
SLE: Systemic Lupus Erythematosus.
ANA: Anti-nuclear Antibody.
CCLE: chronic cutaneous Lupus erythematosus.

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