DISCOID LUPUS ERYTHEMATOSUS IN NORTHERN INDIA

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An analysis of 88 cases of discoid lupus erythematosus is reported. The male: female ratio was 1.2:1. Majority of the patients had lesions on the nose, cheeks, lips, pinnae and scalp. Photosensitivity was observed in 52.3% patients. Seven patients had positive antinuclear factor without any other systemic involvement. Three patients developed squamous cell carcinoma on the DLE lesions after a gap of 8-12 years. One patient changed from DLE to systemic lupus erythematosus. Systemic chloroquine alone or local corticosteroids with para-amino-benzoic-acid or calamine lotion were found quite effective in majority of the patients.

Key words : Discoid lupus erythematosus, Squamous cell carcinoma, Photosensitivity.

Discoid lupus erythematosus, a well known clinical entity, has world-wide distribution.[1,2] However, to the best of our knowledge there is not a single report from the Indian sub continent giving the clinical and laboratory profile of discoid lupus erythematosus. The present study reports the clinical profile of 88 patients of discoid lupus erythematosus seen by us over a period of 6 years.

Subjects and Methods

Patients attending from September 1975 to July 1981 were included in this study. A detailed history and cutaneous and systemic examination were recorded. Laboratory investigations included haemoglobin, TLC, DLC and ESR, antinuclear factor and LE cell phenomenon, rheumatoid factor, VDRL, cryoglobulins, C3, serum proteins and albumin: globulin ratio, X-ray chest, skin biopsy and examination for fungus.

Results

Out of the 88 patients, 44 were males and 40 females. The male : female ratio was 1.2:1. The age of the patients at the onset of the lesions is shown in table I. Majority of the patients were in the age group of 21-40 years. The youngest patient was a 4-year-old female child and the oldest was 69-year-old male at the time of onset of the disease. Sixty four (72.72%) patients had multiple lesions, while 9 (10.33%) had a singular lesion, present on the nose in 7 cases and chin and forearm in one case each. Two and 3 lesions were seen in 5 (5.68%) and 10 (11.36%) patients respectively. Cheeks (66), nose (54), pinna (42), trunk (32), and forehead (27) were the most commonly effected sites (Table II). In 24 (27.27%) patients, lips were involved; lower lip in 23 patients and both upper and lower lips in 5. Mucosal involvement was seen in 6 (6.81%) patients (4 buccal mucosa and one each soft palate and nasal mucosa). Cicatricial alopecia was noted in all the 16 cases having lesions on the scalp.

Forty six (52.27%) patients complained of photosensitivity in the form of burning and redness of the lesions on exposure to sunlight. Ten patients had joint pains. None of the patients had continuous fever, Raynaud's phenomenon, respiratory or gastro-intestinal symptoms.

Vitiligo along with DLE was present in 5 patients. One patient who initially presented with lesions of DLE with negative ANF changed

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to systemic lupus erythematosus over a period of 19 years with development of arthralgia, fever, Raynaud's phenomenon, butterfly rash, gangrene of the fingertips, enlargement of the liver and spleen, leucopenia and strongly positive ANF and rheumatoid factor.

In 3 patients, squamous cell carcinoma developed on the pre-existing lesions of DLE, 8-12 years after the onset of the disease.

Twenty seven (57.45%) patients had raised ESR, antinuclear factor was positive in 7 (14.89%), albumin/globulin ratio was altered in 12 (57.14%) patients and skin biopsy was compatible with DLE in 42 (87.5%) patients. The other investigations were normal.

Sixty five patients received corticosteroid cream (Betamethasone valerate 0.12%, or Fluocinolone acetonide 0.025%) along with para-aminobenzoic acid, 5% in cream or calamine lotion. Twenty four patients were lost to follow up. Four (9.75%) patients showed complete clearance of the lesions after 1-3 months of treatment and 33 (80.48%) patients showed 33-75% improvement after 4-6 months of treatment. In 4 (9.75%) patients, there was no improvement at all, rather new lesions continued to appear and old ones failed to respond.

Twenty patients received chloroquine phosphate (200 mg thrice daily for 1 week followed by twice daily for 1 week and once daily for next 2-3 weeks). Six patients were lost to follow up. Only one patient showed complete clearance of skin lesions. In 10 patients, there was 33-50% clearance of lesions and in 3 patients, no improvement was seen after 5 months of therapy.

Two patients of DLE, who received clofazimine (300 mg daily) for 2 and 3 months respectively, showed only partial (33%) improvement. One patient showed spontaneous regression of skin lesions without any treatment while in the ward.

Comments

Discoid lupus erythematosus is not an uncommon disease in India. But surprisingly, no data is available from the Indian subcontinent on its clinical presentation. In the present study, in more than 50% patients, the disease started in the 3rd or the 4th decade and maximum number of cases (28) were in the 3rd decade. In the western countries also, the peak incidence of the disease is seen in the 3rd and 4th decades[1, 2]. The male:female ratio of 1.2:1 as seen in the present study is in contrast to the observation of other workers [3, 2] who noted that DLE affects twice as many females as males. Family history of the same or any other related collagen disorder was negative in all the patients in the present series.

About 50% of our patients complained of photosensitivity. Rowell[1] also reported exacerbations with sunlight in 68% of his patients. Epstein et al[5] had earlier suggested that photosensitivity reaction appears to be an aggravating factor in DLE. However, Baer and Harber[6] did not think that sunlight has any role in the pathogenesis of DLE.

The sites affected by DLE in the present study are almost similar to what had been reported by other workers [1, 2]. Involvement of palms in DLE is rare.[11] In the present study also, only 2 (2.27%) patients had lesions of DLE on the palms. However, dorsum of hands, dorsum of feet and soles were affected by DLE in 7 (7.95%), 3 (3.4%) and 2 (2.27%) patients respectively (table II). Prystowsky and Gilliam[12] also reported lesions of DLE on palms and soles in 6% of their cases. Vitiliginous patches were seen along with DLE in 5 patients. Only 1 patient changed from DLE to SLE after 19 years. Cannon and Curtis[7] and Scott and Rees[8] reported similar occurrence of transition from DLE to SLE. Squamous cell carcinoma developing in DLE is reported

to be rare.[9], [10] Cyriac and Gopinathan from (Kerala) India reported a case in which squamous cell carcinoma developed in a DLE lesion on face[13]. But in the present series 3 (3.40%) patients developed squamous cell carcinoma on the pre-existing DLE lesions, 8-12 years after the onset of the disease. Rowell[1] has reported positive antinuclear factor in 35% of cases of DLE. We also had 7 (14.89%) cases of DLE with positive antinuclear factor. These patients did not have any other sign or symptom of systemic involvement.

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Table I. Age at onset of discoid upus erythematosus.

Age in years	No. of patients	Percentage
1-10	2	2.27
11-20	15	17.04
21-30	28	31.82
31-40	19	21.59
41-50	17	19.31
51-60	4	4.54
61-70	2	2.27
71-80	1	1.14

Table II. Sites of involvement.

Site		No. of patients	Percentage
Cheek		66	75.00
Tip of the nose		54	61.36
Pinna		42	47.72
Trunk		32	36.36
Forehead		27	30.68
Lip		24	27.27
Scalp		16	18.18
Neck		15	17.04
Arms		19	19.31
Thigh and legs		6	6.81
Feet	Sole	2	2.27
	Dorsum	3	3.40
Hand	Dorsum	7	7.95
	Palm	2	2.27
Scrotum		1	1.14