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SCROTAL TONGUE AS A VALUABLE CLINICAL FEATURE IN PSORIASIS

P. TOOSI M.D., AND F.GHALAMKARPOUR M.D.

From the Department of Dermatology, Loghman Hakim Medical Center, Shahid Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran.

ABSTRACT

In a prospective clinical trial, the incidence of scrotal tongue in psoriatic patients was studied. One hundred psoriatics and the same number of non-psoriatic individuals were evaluated for the incidence of fissured tongue, age, duration of illness, and clinical types of psoriasis. In this study 49 psoriatic patients (49%) and 28 non-psoriatic persons (28%) had fissured tongue. The most common type of psoriasis (38% of patients) was plaque type and the patients' mean age was 22 years. We conclude that scrotal tongue had a higher incidence among psoriatic patients and can be considered as a useful clinical sign.

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INTRODUCTION

Scrotal tongue is a developmental defect of the tongue. It is characterized by a longitudinal median groove on the dorsal surface of the tongue and some symmetrical radiating fissures which divide the tongue into irregular transverse parts. In its milder forms it is very common. It may be evident from infancy or may not be manifest until later in the life. A Swedish study showed a prevalence of 0.4% in the first decade, rising to 14% in the fifties.

Scrotal tongue is inherited by an autosomal dominent mandelian trait. Its association with geographic tongue has been suggested but no investigation on its association with psoriasis has been done before.

METHODS

One hundred psoriatic patients who were referred and admitted to the Dermatology Clinic of Loghman-Hakim University Hospital, Tehran from May 3rd, 1988 to November 3rd, 1988 were compared with 100 non-psoriatic patients in this study. In these groups, age, type of psoriasis, duration of illness and the incidence of scrotal tongue were recorded and analyzed.

RESULTS

The age of the psoriatic group was between one month and 80 years old with a mean age of 22. In the non-psoriatic control group, the mean age was 27.7 years and the majority were between 18 to 26 years old. In the last group 9% had scrotal tongue. Among the clinical types of psoriasis, 38% had plaque type, 18% generalized, 13% scalp type, 8% guttate, 6% erythrodermic, 5% palmoplantar, 5% flexural, and 3% had arthropathic type.

The mean duration of illness in 100 patients was

Table I

Age	Ave	Total	Scrotal-Tongue	Percentage %
0-8	4	9	2	7.1
9-17	13	18	2	7.1
18-26	22	32	9	32
27-35	31	17	6	21.5
36-44	40	9	3	11
45-35	49	5	0	0
54-42	58	4	2	7.1
63-71	67	3	2	7.1
72-80	76	3	2	7.1
		100	28	

Non-Psoriatic patients

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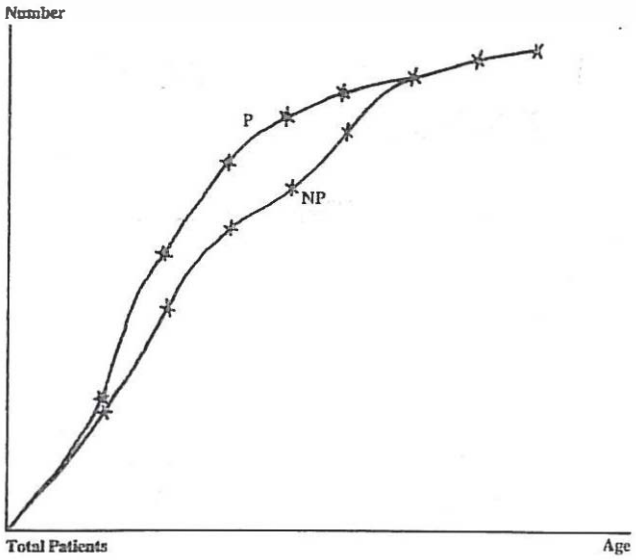

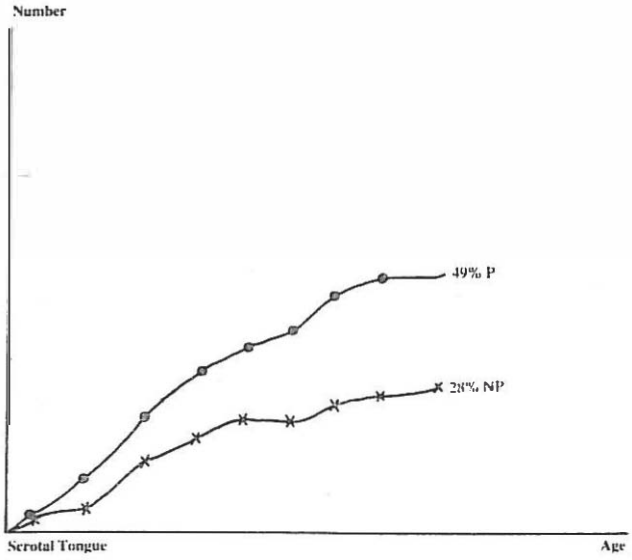

about six years. Duration of illness in plaque type was 4.5 years; generalized, 9.4 years; scalp 2.4 years; guttate, 6.1 years; erythrodermic, 6 years; flexural, 4.25 years; palmoplantar, 5.6 years; and arthropathic type 11.3 years.

DISCUSSION

Psoriasis is a common disease but mucosal involvement is very rare in this disease and if ever seen, is limited to pustular and erythrodermic psoriasis. Sites of predilection are lips, buccal mucosa, gingiva and tongue. Mucosal involvement consists of well demarcated plaques or annular lesions. Although lesions of the lips may show a silvery and shiny appearance, their color ranges from gray to yellow to white. They vary in size from a few millimeters to a few centimeters. The Koebner phenomenon may be seen in the oral mucosa.

Scrotal tongue is a developmental defect which is manifested by one or more variable-sized fissures on the dorsal surface of the tongue. The symmetrically radiating fissures differ considerably in size and depth in each individual, but there is always a longitudinal fissure medially on the dorsal surface of the tongue. Its milder forms are very common; males are slightly but more obviously affected than females. An increased incidence occurs with age, but no racial difference has been noted. The cause and pathogenesis are unknown but an autosomal dominent inheritance is suggested. Although some authorities agree that the condition is influenced by malnutrition and cummulative effect of trauma but it may be seen in hypersensitivity reactions of the oral mucosa. Fissured tongue has an association with geographic tongue. It occurs in Down's syndrome in 80% of the cases. Scrotal tongue is a characteristic though inconstant feature of Melkerson-Rosenthal syndrome. In our study of one hundred psoriatic patients, 49% had scrotal tongue while in the control group, (100 non-psoriatic patients) it was seen in only 28%. Thirty-eight percent of psoriatics were in the age group which had the mean age of 22. Fissured tongue

Table II

Age	Ave	Total	Scrotal-Tongue	%	PL	FL	ER	GO	GN	AR	PA	SC	MI
0-8	4	9	3	6.1	1	0	0	0	0	0	1	0	1
9-17	13	16	7	14.3	2	0	0	1	1	0	0	3	0
18-26	22	22	12	24.5	5	0	0	4	1	0	1	0	1
27-35	31	16	8	16.3	4	0	1	0	2	1	0	0	0
36-44	40	9	5	10.2	3	1	0	0	1	0	0	0	0
45-53	49	11	3	6.1	2	0	0	0	1	0	0	0	0
54-62	58	11	7	14.3	3	0	0	0	2	1	1	0	0
63-71	67	4	3	6.1	1	0	0	0	1	1	0	0	0
72-80	76	2	1	2.1	0	0	0	0	0	0	0	1	0
		100	49										

Psoriatic Patients

PL: Plaque
FL: Flexural
ER: Erythrodermic
GO: Guttate
GN: Generalized
AR: Arthropathic
PA: Palmo-Plantar
SC: Scalp
MI: Miscellaneous

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was seen in 28% of them.

In non-psoriatics, the average age was 27.7 years. Thirty-two percent of patients were between the ages of 18-26, (average 22). The incidence of scrotal tongue in this group of patients was 9%.

Comparing the groups of patients, we found that fissured tongue is a frequent presentation in psoriasis. In our trial the most frequent type of psoriasis seen was the plaque type; furthermore patients in the 18-20 year age group showed the highest rate of scrotal tongue incidence (28%). Scrotal tongue also was seen more frequently in younger non-psoriatic individuals.

Viewing the above outcome, we suggest that scrotal tongue should be taken into consideration as a valuable mucosal sign in psoriasis.

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