

ble I. HLA-Aw 19 (w 29) was not significantly increased, considering the number of HLA-specificities tested.

DISCUSSION

In this study there was no statistically significant difference in the HLA-antigen distribution between the patients with GA and the control subjects. The human histocompatibility antigens HLA-B 8 and HLA-Bw 15 are found in increased numbers in insulin-dependent diabetes mellitus (7). The findings of the present study cannot therefore support the theory of an association between localized GA and insulin-dependent diabetes. Our findings do confirm recent observations by Friedman-Birnbaum, Haim, Gideone & Barzilai (4) in a small series of patients ($n=13$). As for generalized GA, which is rare in Scandinavia, they found a significant correlation in 19 patients with HLA-Bw 35. This could indicate a linkage between generalized GA and diabetes, previously suggested from studies on carbohydrate tolerance (5). Further investigations are required to elucidate this association.

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The Usefulness of the Nonspecific Skin Hyperreactivity (The Pathergy Test) in Behçet's Disease in Turkey

Y. Tüzün, H. Yazıcı, H. Pazarlı, B. Yalçın, S. Yurdakul and A. Müftüoğlu

Departments of Dermatology, Internal Medicine and Ophthalmology, Cerrahpaşa Medical School, University of Istanbul, Istanbul, Turkey

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Abstract. 49 of 58 (84%) patients with Behçet's disease in Turkey had a positive pathergy test; the same test proved positive in 3 of the 90 (3%) of healthy and diseased controls.

Key words: Behçet's disease; Pathergy

Skin hyperreactivity to needle prick is a well known feature of Behçet's disease (2, 3). In two previous studies that have investigated this phenomenon the control groups were mainly selected from dermatological diseases and SLE (2, 7). Eye and joint involvement are integral parts of Behçet's disease (4). Therefore patients with diseases of these organ systems should also be included in such studies. This study reports such an attempt, utilizing both a larger control group and a larger patient population compared with the previous studies.

MATERIAL AND METHODS

The probands consisted of the initial consecutive 58 patients seen as part of an ongoing prospective study of

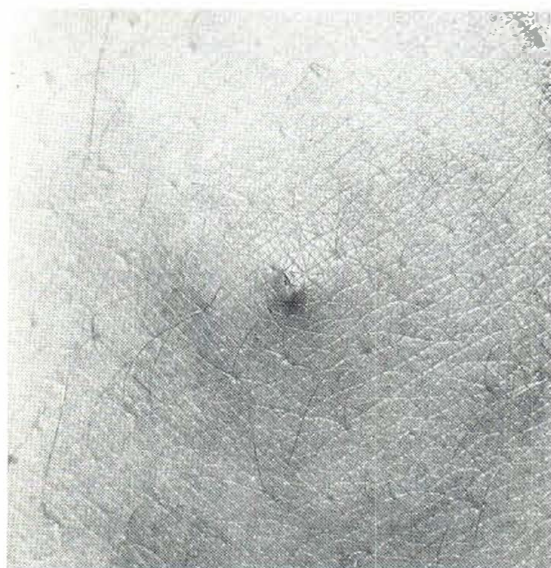


Fig. 1. A positive pathergy test demonstrating the papule ($\times 3$).

Behçet's disease in an Behçet's disease outpatient clinic. These patients were sent to us because the referring doctors were aware of this study. All patients were seen by a dermatologist, a rheumatologist and an ophthalmologist. All had slit-lamp examinations of the eye. Diagnostic criteria as proposed by O'Duffy were used (4). In order to establish a diagnosis, three out of the following five criteria—either historically or at the time initially seen—had to be present: (a) Aphthous stomatitis; (b) genital ulcers; (c) uveitis; (d) dermal vasculitis; and (e) arthritis. Either aphthous stomatitis or genital ulcers had to be among these three. The clinical observation of pyoderma and/or erythema nodosum-like lesions was considered adequate for the diagnosis of dermal vasculitis. The non-specific hypersensitivity to needle prick—pathergy—(8) was defined as at least a papule observed at the needle prick site 48 hours after the application of a sterile needle that penetrated to the corium of an avascular site on the forearm (Fig. 1). The observation of erythema alone at the needle site was considered a negative test. No attempt was made to quantitate the reaction. Hospital personnel comprised the healthy controls. The diseased controls were referred from the dermatology, rheumatology and the ophthalmology clinics. 11 patients with

Table 11. *The pathergy test*

Groups	Positive	Negative	Total
Behçet's disease	49	9	58
Recurrent aphthous stomatitis	2	14	16
Iridocyclitis	—	11	11
Idiopathic erythema nodosum	1	10	11
Pyoderma	—	8	8
Rheumatoid arthritis	—	10	10
Ankylosing spondylitis	—	7	7
Juvenile rheumatoid arthritis	—	5	5
Reiter's syndrome	—	2	2
Healthy controls	—	20	20

iridocyclitis; 10 with rheumatoid arthritis; 7 with ankylosing spondylitis; 5 with juvenile rheumatoid arthritis; 2 with Reiter's syndrome; 11 with idiopathic erythema nodosum; 16 with recurrent aphthous stomatitis and 8 with pyoderma comprised the diseased control group. All pathergy reactions were read by the same observer (Y. T.).

RESULTS

There were 48 males and 10 females. The mean age of the patients at the time initially seen was 33 ± 9 (S.D.) years. The distribution of the clinical findings is summarized in Table 1. As is seen in Table II, 49 out of the 58 (84%) patients with Behçet's disease had a positive pathergy test. Only 3 patients of the 90 (3%) normal and diseased controls had a positive test. One of the positives among the controls had idiopathic erythema nodosum and 2 had recurrent aphthous stomatitis. They did not have any other stigmata of Behçet's disease.

DISCUSSION

Our study indicates that both the sensitivity and the specificity of the pathergy test for Behçet's disease are quite high. However, it must be stressed that the prevalence of some of the features of this disease differ in different parts of the world. For example colitis which is frequently seen in this disease in Japan and United States (5, 6), is very infrequently observed in our country where this disease was initially described (1, 9). The same holds true for the prevalence of the histocompatibility antigen HLA-B5. The same high prevalence of this allele, observed in Turkey, Japan, Southern France and Israel, is not observed in the United States and in Britain (9). Thus we believe it to be quite important

Table 1. *Distribution of clinical findings*

Clinical findings	Patient	(%)
Aphthous stomatitis	58	(100)
Genital ulceration	52	(90)
Iridocyclitis	28	(48)
Dermal vasculitis	54	(93)
Arthritis	38	(66)

that each country report the local prevalence of the pathergy test in a well defined group of patients and controls. Meanwhile the test remains an important diagnostic tool for Behçet's disease in Turkey.

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Immunoglobulins in Alopecia Areata

R. D. Ead

The Skin Hospital, University of Manchester School of Medicine, Quay Street, Manchester, M3 3HL, England

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fell with increasing severity of disease as judged by the area of scalp involved. IgM in subjects with extensive disease was significantly lower than that of an age- and sex-matched control group.

Key words: Immunoglobulins; Alopecia areata

Kern et al. (2) measured serum immunoglobulins in 44 subjects with alopecia areata, alopecia totalis and alopecia universalis and could find no abnormalities apart from "mild depression of one or more of the immunoglobulins in a few subjects". They made no comment on the severity of the disease in those subjects with low immunoglobulin levels. In this investigation, IgA, IgM and IgG were measured in subjects with alopecia areata and correlated with the area of scalp involved by the disease.

MATERIALS AND METHODS

Serum was obtained from 57 subjects with varying degrees of alopecia areata, alopecia totalis and alopecia universalis. The area of scalp involved was assessed clinically and the patients were divided into three groups: less than one-third of the scalp involved, between one-third and two-thirds of the scalp involved and more than two-thirds of the scalp involved. The "activity" of the disease was assessed by asking the patient about fall of hair, examining for the presence or absence of exclamation mark hairs and noting the ease with which perilesional hairs could be pulled from the scalp. The duration of the disease and any history of eczema, asthma or hay fever in the patient or relatives were recorded. Serum was also obtained from 20 healthy control subjects age- and sex-matched with the subjects in the most severe group. All specimens were stored at -20°C until required. Immunoglobulin levels were measured by radial immunodiffusion using commercially available plates and standard sera (Diffu-Gen, Oxford Laboratories).

RESULTS

The mean level of IgM fell with increasing severity of disease and IgM in subjects with more than two-thirds of the scalp involved was significantly lower (Student's test) than that of age- and sex-matched controls. IgA levels also tended to fall with increasing severity of the disease but this was not significant. There were no changes in IgG levels. Immunoglobulin levels did not correlate with the "activity" of the disease or the presence of atopic symptoms in the patient. Nine of the 20 subjects in the group with over two-thirds of the scalp involved

Abstract. Serum immunoglobulin levels (IgA, IgM, IgG) were measured by radial immunodiffusion in 57 subjects with varying degrees of alopecia areata. Both IgA and IgM