

HLA Antigens in Localized Granuloma Annulare

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Abstract. HLA antigen frequencies were studied in 46 patients with localized granuloma annulare. The results do not support the hypothesis of an association between this condition and insulin-dependent diabetes mellitus.

Key words: Granuloma Annulare; Histocompatibility antigens; Disease association

The etiology of granuloma annulare (GA) is still unknown. An association with diabetes mellitus has been suggested (2, 9) but the results of glucose tolerance and insulin secretion studies in patients with GA are contradictory (1, 3). This does not exclude that GA could be associated with such an early phase in the development of diabetes that the presently available biochemical tests have not yet indicated abnormality (prediabetes).

Genetic factors are considered to be of importance in the development of (at least) insulin-dependent diabetes (10). Recently evidence has become available that some antigens within the major human histocompatibility system, HLA-B8 and HLA-Bw 15, are associated with diabetes mellitus (7). Being genetic markers, the HLA phenotypes have therefore been determined in a series of patients with GA. This study was further prompted by a recent suggestion of delayed hypersensitivity reactions in GA lesions (12) in view of the assumed association between immune response genes and the HLA system (8).

PATIENTS

46 consecutive, unrelated patients with clinically and histologically characteristic GA of the localized form, 17 men and 29 women, were investigated. The mean age was 33 years (range 5-65). No patient had manifest diabetes.

METHOD

HLA-typing was performed by the lymphocytotoxic microtechnique (6). The lymphocyte suspensions were

Table 1. HLA antigen frequencies in patients with Granuloma annulare and healthy controls

	Frequency %	
	Patients (n=46)	Controls (n=500)
HLA-A		
1	23.9	26.8
2	54.3	58.6
3	23.9	29.2
9 (w 23)	2.2	1.2
9 (w 24)	21.7	16.6
10 (w 25)	6.5	5.0
10 (w 26)	2.2	6.6
11	17.4	8.8
w 19 (w 29)	10.9 ^a	3.8
w 19 (w 30)	4.3	3.4
w 19 (w 31)	2.2	5.6
w 19 (w 32)	4.3	3.6
28	8.7	8.6
HLA-B		
5	13.0	9.2
7	30.4	28.0
8	28.3	25.0
12	23.9	25.0
13	0.0	2.2
14	2.2	4.6
w 15	23.9	23.4
w 16 (w 38)	0.0	0.6
w 16 (w 39)	0.0	3.2
w 17	10.9	4.8
18	13.0	7.8
w 21	2.2	2.2
w 22	2.2	3.0
27	4.3	10.6
w 35	10.9	12.6
37	0.0	3.4
w 40	13.0	19.0
w 41	4.3	1.0
HLA-C		
w 1	10.9	8.2
w 2	2.2	9.4
w 3	39.1	40.2
w 4	15.2	15.4
w 7	0.0	1.6

^a $\chi^2=5.01$, $p<0.05$, corrected $p<1.8$. Relative risk factor 3.09.

prepared from defibrinated blood according to the Isopaque-Ficoll method described by Thorsby & Bratlie (11).

The frequencies of the HLA-ABC antigens in GA were compared with those of 500 healthy controls, consisting of blood donors and hospital staff.

RESULTS

The HLA-phenotype frequencies for the GA patients and the control population are shown in Ta-

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

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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