Usefulness of HLA determination and pathergy test in the diagnosis of uveitis in Turkey

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SUMMARY None of the 40 patients with uveitis clinically diagnosed as non-Behçet's disease in Turkey were HLA B5 and pathergy positive at the same time. Nine of 18 (50%) patients with acute anterior uveitis and one of 22 (4%) patients with other forms of uveitis carried HLA B27.

We have recently demonstrated the usefulness of the combined application of HLA B5 determination and the pathergy test in diagnosis of Behçet's disease in Turkey.¹ We now report the application of these 2 tests, with the addition of HLA B27 determination, to a group of patients with uveitis clinically diagnosed as having entities other than Behçet's disease.

Materials and methods

Forty consecutive patients with uveitis constituted the probands. Behçet's disease was excluded by O'Duffy's criteria.² The diagnosis and the localisation of the uveitis was based on clinical symptoms and signs.

The nonspecific hypersensitivity to the needle-prick pathergy test was done as previously described.³ The tissue typing for HLA B5 and HLA B27 was done with antisera against these 2 specificities obtained from Behringwerke AG, Marburg Lahn, W. Germany. The 2-stage NIH method was used⁴ and there were 2 wells for each specificity, including positive and negative controls.

Results

Table 1 shows the clinical findings, HLA determinations, and pathergy readings. Eighteen patients had what we classified as acute anterior uveitis (A.A.Uv.), 22 patients had chronic uveitis, 15 had chronic anterior uveitis (A.Uv.+P.Uv.), 5 had panuveitis (Pan.Uv.), 2 had posterior uveitis only

(P.Uv.). Of these 2 patients with posterior uveitis only, one had ankylosing spondylitis (AS). Of the 18 that had acute anterior uveitis 3 had AS, 1 had juvenile rheumatoid arthritis, and 1 had Reiter's syndrome. The remaining 14 had no associated illness except for one patient who has skin and pulmonary tuberculosis (no. 31).

Nine of 18 (50%) patients with acute anterior uveitis and only 1 of 22 patients (4%) with other forms of uveitis carried HLA B27 ($\chi^2=8.6$, $p<0.01$) (Table 2).

Table 3 shows the distribution of the patients according to the B5, B27 determinations and pathergy tests. There were no patients that were B5(+) and pathergy (+) at the same time. Four patients were pathergy positive (4/40=10%, patients: 21, 26, 34, 37).

Discussion

In a previous paper we have reported the application of the HLA B5 and pathergy tests to a group of patients with Behçet's disease (n=49) and demonstrated that none of these patients were HLA B5 (–) and pathergy (–).¹

We now report that when the 2 tests are applied to a group of patients with uveitis clinically diagnosed as not Behçet's none of them have both tests positive simultaneously. Thus this combination of tests applied to a patient with uveitis in our country can be very useful in categorising the patient's disease as Behçet's disease or non-Behçet's disease. The combination obviously would have even more usefulness in defining groups of patients with uveitis.

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It is also evident that acute anterior uveitis is associated with HLA B27 in Turkish patients, in conformity with a previous report from another eastern

Mediterranean country, Greece.⁵ No such association, however, was found in the acute anterior uveitis of the South African Blacks.⁶

Table 1 Clinical findings and HLA and pathergy results

Case no.	Age, sex	HLA B5	HLA B27	Pathergy	Type of uveitis	Associated clinical findings
1	19/F	-	-	-	Pan.Uv.	
2	35/M	-	-	-	A.Uv. + P.Uv.?	
3	40/F	-	-	-	A.Uv. + P.Uv.?	Rheumatoid arthritis
4	27/M	-	+	-	A.A.Uv.	Reiter's syndrome
5	39/F	-	-	-	P.Uv.	
6	19/M	-	-	-	A.A.Uv.	
7	42/F	-	+	-	A.A.Uv.	Ankylosing spondylitis
8	10/M	-	+	-	A.A.Uv.	
9	3/M	+	-	-	A.Uv. + P.Uv.?	J. rheumatoid arthritis
10	64/M	-	+	-	A.A.Uv.	
11	40/F	+	-	-	A.Uv. + P.Uv.?	
12	50/F	+	-	-	A.Uv. + P.Uv.?	Sarcoidosis
13	28/M	-	-	-	A.Uv. + P.Uv.?	
14	33/F	-	-	-	A.Uv. + P.Uv.?	
15	9/F	-	-	-	A.Uv. + P.Uv.?	
16	31/F	-	-	-	A.A.Uv.	
17	46/F	-	-	-	A.Uv. + P.Uv.?	
18	32/M	-	-	-	A.Uv. + P.Uv.?	
19	23/M	-	-	-	Pan.Uv.	
20	18/F	-	-	-	A.Uv. + P.Uv.?	
21	36/F	-	-	+	A.Uv. + P.Uv.?	
22	7/F	-	-	-	A.Uv. + P.Uv.?	
23	39/M	+	-	-	Pan.Uv.	
24	30/M	-	+	-	A.A.Uv.	Ankylosing spondylitis
25	47/F	+	-	-	A.A.Uv.	
26	34/M	-	-	+	A.Uv. + P.Uv.?	Tuberculosis
27	28/F	-	-	-	Pan.Uv.	
28	27/M	-	+	-	A.A.Uv.	
29	30/F	-	-	-	A.Uv. + P.Uv.?	
30	54/F	-	-	-	A.A.Uv.	J. rheumatoid arthritis
31	30/F	-	-	-	A.A.Uv.	Tuberculosis
32	39/M	+	-	-	A.A.Uv.	
33	38/M	+	-	-	A.A.Uv.	
34	35/F	-	+	+	A.A.Uv.	
35	34/F	-	-	-	A.A.Uv.	
36	49/M	-	+	-	A.A.Uv.	
37	42/F	-	-	+	A.A.Uv.	
38	27/F	+	-	-	Pan.Uv.	
39	45/M	-	+	-	A.A.Uv.	Ankylosing spondylitis
40	27/M	-	+	-	P.Uv.	Ankylosing spondylitis

*Fundus could not be visualised because of complicated cataract. For abbreviations see text.

Table 2 Uveitis and HLA B27

	Acute anterior uveitis	Other kinds of uveitis	Totals
HLA B27 (+)	9	1	10
HLA B27 (-)	9	21	30
Total	18	22	40

$\chi^2=8.619$, $p<0.01$.

Table 3 HLA and pathergy association

	Pathergy (+)	Pathergy (-)
HLA B5 (+)	0	8
HLA B5 (-)	4	28
HLA B27 (+)	1	9
HLA B27 (-)	3	27

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