Clinical Features of Acute Anterior Uveitis

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We studied the clinical features and prognosis of 73 patients with HLA-B27 positive and 71 patients with HLA-B27 negative acute anterior uveitis using computer analysis of more than 50 variables per patient. The patients with HLA-B27 positive acute anterior uveitis showed the following characteristics, which were significantly different from patients with HLA-B27 negative acute anterior uveitis: younger age at onset; high male to female ratio; frequent unilateral alternating eye involvement; severe ocular symptoms during activity, such as presence of fibrin in the anterior chamber; absence of mutton fat keratic precipitates; high incidence of ocular complications; and frequent association with seronegative spondyloarthropathies.

Despite the difference of disease severity and incidence of complications, the long-term visual outcome did not differ significantly between the two groups. No distinctions were observed when patients with HLA-B27 positive acute anterior uveitis were subdivided according to sex or the presence of ankylosing spondylitis. HLA-B27 positive acute anterior uveitis formed a distinct clinical entity associated with serious prognosis as compared to HLA-B27 negative acute anterior uveitis.

ACUTE ANTERIOR UVEITIS is the most common form of intraocular inflammation and accounts for an annual incidence of 8.2 new cases per

100,000.¹ It is also one of the most difficult uveitis entities to diagnose from an etiologic standpoint. Acute anterior uveitis is currently classified as an iridocyclitis that lasts less than three months.²

In a white population acute anterior uveitis is associated with HLA-B27 in 50% of the patients.³⁻⁶ It accounts for the majority of uveitis cases seen by an ophthalmologist who works with this population. Of patients with HLA-B27 positive acute anterior uveitis, more than half suffer from an associated rheumatic disease.^{5,6}

Anterior uveitis associated with HLA-B27 has been reported to form a distinct clinical entity with favorable clinical prognosis when compared to patients with HLA-B27 negative acute and chronic anterior uveitis.⁷⁻⁹ The reported clinical features of HLA-B27 positive anterior uveitis include unilateral ocular involvement, short duration of activity, marked protein extravasation into the anterior chamber, and the absence of mutton fat keratic precipitates.⁷⁻¹⁰ Other authors, however, could not confirm these clinical findings.¹¹ Many clinical studies dealing with this subject have used the term "acute" to describe the type of inflammation rather than the duration of activity. Therefore, the results of several clinical studies are not directly comparable.

We conducted an analysis of the clinical features and visual outcome in 73 patients with HLA-B27 positive and 71 patients with HLA-B27 negative acute anterior uveitis. The aim of our study was to define a clinical entity of HLA-B27 positive acute anterior uveitis and to compare its clinical features and prognosis to patients with HLA-B27 negative acute anterior uveitis.

Material and Methods

We studied 73 consecutive patients with HLA-B27 positive and 71 consecutive patients with HLA-B27 negative acute anterior uveitis

Accepted for publication Oct. 3, 1986; revised manuscript received Nov. 3, 1986.

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who were examined at a uveitis clinic in Amsterdam during 1983 and 1984. Acute anterior uveitis was defined as iritis or iridocyclitis that completely healed within three months. Patients in whom acute anterior uveitis was initially diagnosed but which later became chronic were not included in this study.

Examination of all patients included HLA-B27 typing, syphilis serology, serum angiotensin-converting enzyme, serum lysozyme, and chest x-rays. Sacroiliac x-rays were performed in 70 of 73 patients positive for HLA-B27. The reported incidence of ankylosing spondylitis in patients with HLA-B27 negative acute anterior uveitis is low^{6,7,9,11}; therefore, in this group the x-rays of sacroiliac joints were only performed in patients with low back pain or arthralgias (14 of 71). All patients were examined during an active attack of acute anterior uveitis and when possible a retrospective review of clinical data was performed. In all cases a full ophthalmologic examination, including slit-lamp examination, indirect ophthalmoscopy, tonometry, and visual acuity testing, was performed. All patients positive for HLA-B27 and patients negative for HLA-B27 with lumbar pain or arthralgias were examined by a rheumatologist. Ankylosing spondylitis was diagnosed using Bennet and Burch's criteria.¹²

All patients were treated with corticosteroids and cycloplegic eyedrops. Occasionally, subconjunctival injections of corticosteroids were administered. Oral corticosteroids were not used, but in some cases oral non-corticosteroid anti-inflammatory agents were prescribed.

For each patient the following criteria were stored in a database: results of the HLA-B27 typing, sex, race, age at the onset of acute anterior uveitis, number and date of active acute anterior uveitis episodes, concomitant diseases and prescribed medications, concomitant ocular abnormalities, familial occurrence of general or ocular diseases, results of sacroiliac x-rays, complaints of lumbar pain or arthralgia, and recent ocular findings including optimal visual acuity and persisting acute anterior uveitis complications.

Further, during each active recurrence of acute anterior uveitis, inflammatory activity was classified according to a standard grading system^{13,14} and recorded with the results of slit-lamp examination, ophthalmoscopy, and tonometry; the decrease of visual acuity; other ocular complications of acute anterior uveitis; duration of the activity; unilateral or bilateral

involvement of the disease; any previous illness or exacerbation of lumbar pain or arthralgia; and concomitant general medication. We also recorded the medication for acute anterior uveitis, any continuous ocular therapy, and the ophthalmologic findings after the inflammation had subsided. The data were analyzed (1) by calculating the descriptive statistics for the HLA-B27 positive and HLA-B27 negative acute anterior uveitis groups, and (2) the differences were assessed using the chi-square test and Student's t-test when appropriate. A 12-cell chi-square analysis was used to test for significant deviation of the monthly acute anterior uveitis incidence from the expected number of $\frac{1}{12}$ of the cases per year. (In this study $P < .05$ was considered significant unless stated otherwise). The mean duration of follow-up was 3 $\frac{1}{2}$ years.

Results

Patients positive for HLA-B27 were younger, predominantly men, and had more frequent recurrent acute anterior uveitis than patients negative for HLA-B27 (Table 1). When the patients who had recurrent acute anterior uveitis were compared in both groups, the disease-free intervals were longer in patients positive for HLA-B27.

There were six black patients in the group negative for HLA-B27, and none in the group positive for HLA-B27 ($P < .05$).

TABLE 1
CHARACTERISTICS OF PATIENTS WITH
ACUTE ANTERIOR UVEITIS

CHARACTERISTIC	PATIENTS POSITIVE FOR HLA-B27 (N = 73)	PATIENTS NEGATIVE FOR HLA-B27 (N = 71)
Age at the onset (yrs)*	34.9	43.2
Sex ratio, male:female*	2.5:1	0.97:1
Duration of symptoms (wks)*	6.1	4.4
Interval between attacks (wks) [†]	100.6	58.3
No. of observed attacks	252	148
Mild systemic disease preceding attack (%)	11	13
Exacerbation of low back pain before attack (%)	7	3

* $P < .002$.

[†] $P < .02$.

Ocular abnormalities apart from uveitis, for example, amblyopia and strabismus, were equally distributed between both groups of patients. Patients positive for HLA-B27 were younger at the onset of acute anterior uveitis than patients negative for HLA-B27. The age distribution of all acute anterior uveitis exacerbations in patients positive for HLA-B27 showed a peak at 30 years of age, whereas patients negative for HLA-B27 showed a biphasic curve with a peak around 30 years and a second peak at 60 years of age (Fig. 1). The seasonal influence on the activity of the disease was evident for patients positive for HLA-B27 ($P < .02$), with the highest incidence of acute anterior uveitis attacks occurring during the autumn and early winter months (Fig. 2). In patients negative for HLA-B27 this seasonal variation seemed negligible.

In both groups we observed equally low percentages of general disorders, mainly mild upper respiratory tract infections or exacerbation of low back or joint pains before an active acute anterior uveitis attack (Table 1). No relationship was found between general medication for associated diseases and the recurrence rate of acute anterior uveitis.

Because there was frequent involvement of both eyes during the course of the disease, we observed 103 affected eyes in the group of

patients positive for HLA-B27 and 92 affected eyes in the group of patients negative for HLA-B27 (Table 2). The unilateral alternating acute anterior uveitis was strongly associated with the presence of HLA-B27 ($P < .001$).

The ocular symptoms during an active stage of acute anterior uveitis were more severe in patients positive for HLA-B27 (Table 3), especially the presence of fibrin in the anterior chamber, evidence of active cyclitis, and a marked decrease of visual acuity. Of 103 affected eyes, 33 (32%) required a subconjunctival corticosteroid injection in patients positive for HLA-B27 as opposed to 5 of 92 (5%) eyes requiring an injection in patients negative for HLA-B27 ($P < .001$). The mean decrease in visual acuity was 3.2 lines and 2.1 lines, respectively, in patients positive and negative for HLA-B27 ($P < .001$).

Persisting ocular complications in patients with acute anterior uveitis are given in Table 4. Complications listed here were caused by uveitis. Cases of decreased visual acuity unrelated to this cause were excluded. The group of patients positive for HLA-B27 was more seriously affected, as the total number of ocular complications was significantly higher in HLA-B27 positive eyes affected by acute anterior uveitis ($P < .001$). Intraocular operations (three filtering procedures and two cataract extrac-

Fig. 1 (Rothova and associates). Age distribution in 296 observed acute anterior uveitis (AAU) attacks.

Fig. 2 (Rothova and associates). Monthly distribution of acute anterior uveitis attacks (AAU).

tions) were required only in patients positive for HLA-B27; the difference, however, was not statistically significant. The number of visually handicapped or legally blind eyes did not significantly differ between the two groups.

Ankylosing spondylitis and Reiter's syndrome were strongly associated with patients positive for HLA-B27 (Table 5). No other association of systemic disease and HLA-B27 positivity or negativity was observed. Except for frequent use of oral antiphlogistics in the group of patients positive for HLA-B27, no further association was observed between the medication for associated disorders and acute anterior uveitis. Low back and peripheral joint pains were typical for patients positive for HLA-B27 (Table 6). Radiologic evidence of ankylosing spondylitis was found in 29 of 70 patients positive for HLA-B27, in whom the x-rays were recently taken.

The patients positive for HLA-B27 were subdivided according to the presence of ankylos-

ing spondylitis (Table 7). No difference was observed in clinical features and complications of acute anterior uveitis in these patients (Table 8); however, all eyes with decreased visual

TABLE 2
OCULAR INVOLVEMENT IN ACUTE ANTERIOR UVEITIS

OCULAR INVOLVEMENT	PATIENTS POSITIVE FOR HLA-B27* (N = 73)		PATIENTS NEGATIVE FOR HLA-B27† (N = 71)	
	NO.	(%)	NO.	(%)
Bilateral‡	2	(3)	15	(21)
Unilateral right	21	(29)	31	(44)
Unilateral left	22	(30)	19	(27)
Unilateral alternating‡	28	(38)	6	(8)

* No. of affected eyes = 103.

† No. of affected eyes = 92.

‡ P<.001.

TABLE 3
CLINICAL FEATURES DURING AN ACTIVE STAGE
OF ACUTE ANTERIOR UVEITIS

FEATURE	PATIENTS POSITIVE FOR HLA-B27 (N = 73)		PATIENTS NEGATIVE FOR HLA-B27 (N = 71)	
	NO.	(%)	NO.	(%)
Fibrin in anterior chamber*	41	(56)	7	(10)
3+ cells in anterior chamber*	44	(60)	13	(18)
Mutton fat keratic precipitates*	2	(3)	23	(32)
2+ cells in vitreous*	40	(55)	14	(20)
Intraocular pressure ≥ 25 mm Hg	11	(15)	11	(16)
Sufficient treatment with eyedrops only*	46	(63)	65	(92)
Required oral noncorticosteroid antiphlogistics*	24	(33)	6	(8)

* $P < .001$.

acuity were in the nonankylosing spondylitis group (difference is not significant). Of 43 affected eyes in patients with ankylosing spondylitis, 15 required a subconjunctival corticosteroid injection; of 60 eyes in patients without ankylosing spondylitis, 18 required an injection. From the seven affected eyes in six patients with Reiter's syndrome, one eye had a visual acuity less than 20/200.

TABLE 5
ASSOCIATION OF SYSTEMIC DISEASE WITH ACUTE
ANTERIOR UVEITIS

SYSTEMIC DISEASE	PATIENTS POSITIVE FOR HLA-B27 (N = 73)		PATIENTS NEGATIVE FOR HLA-B27 (N = 71)	
	NO.	(%)	NO.	(%)
Ankylosing spondylitis*	29	(39)	1	(1)
Reiter's syndrome†	6	(8)	0	(0)
Psoriatic arthropathy	3	(4)	0	(0)
Sarcoidosis (histologically proven)	0	(0)	2	(3)
Syphilis	2	(3)	5	(7)
Diabetes mellitus	1	(1)	6	(9)
Hypertension	2	(3)	7	(10)

* $P < .001$.

† $P < .05$.

TABLE 4
OCULAR COMPLICATIONS IN ACUTE ANTERIOR
UVEITIS

COMPLICATIONS	PATIENTS POSITIVE FOR HLA-B27 (N = 103)		PATIENTS NEGATIVE FOR HLA-B27 (N = 92)	
	NO. OF AFFECTED EYES	(%)	NO. OF AFFECTED EYES	(%)
Cataract	14	(14)	6	(6)
Glaucoma	8	(8)	2	(2)
Cystoid macular edema	4	(4)	0	(0)
Persisting posterior synechiae*	36	(36)	15	(15)
Surgical intervention	5	(5)	0	(0)
Visual acuity $\leq 20/60$	6	(6)	1	(1)
Visual acuity $\leq 20/200$	3	(3)	1	(1)
Total No. of eyes affected†	48	(47)	18	(19)

* $P < .01$.

† $P < .001$.

Of patients positive for HLA-B27, men and women were similar in terms of clinical findings, prognosis of acute anterior uveitis, and presence of associated ankylosing spondylitis. The medical history in patients positive for HLA-B27 disclosed familial occurrence of 8% for ankylosing spondylitis, 5% for psoriasis, and 14% for nonspecific rheumatic problems. These associations were not reported by patients negative for HLA-B27.

From the differences in the clinical picture of acute anterior uveitis between patients positive and negative for HLA-B27, six clinical criteria were selected: (1) unilateral acute anterior uveitis; (2) fibrin or 3+ cells present in anterior

TABLE 6
FREQUENCY OF RHEUMATOLOGIC PROBLEMS IN
PATIENTS WITH ACUTE ANTERIOR UVEITIS

RHEUMATOLOGIC PROBLEM	PATIENTS POSITIVE FOR HLA-B27 (N = 73)		PATIENTS NEGATIVE FOR HLA-B27 (N = 71)	
	NO.	(%)	NO.	(%)
Low back pain*	41	(56)	10	(14)
Pain in peripheral joints*	24	(33)	4	(6)
Complaints severe enough to warrant a visit to consulting physician*	20	(27)	4	(6)

* $P < .001$.

TABLE 7
COMPARISON OF THE CLINICAL FEATURES IN
PATIENTS WITH HLA-B27 POSITIVE
ACUTE ANTERIOR UVEITIS WITH AND
WITHOUT ANKYLOSING SPONDYLITIS

FEATURE	ANKYLOSING SPONDYLITIS* (N = 29)		NONANKYLOSING SPONDYLITIS† (N = 44)	
	NO.	(%)	NO.	(%)
Recurrent acute anterior uveitis	22	(76)	25	(57)
Unilateral alternating eye involvement	15	(52)	13	(30)
Fibrin in anterior chamber	16	(55)	25	(57)
3+ cells in anterior chamber	17	(59)	27	(61)
2+ cells in vitreous	18	(62)	22	(50)

* Sex ratio, male:female, 3:1; average age at onset, 32.5 yrs; average duration of attack, 6.1 wks; average interval between attacks, 113.2 wks.

† Sex ratio, male:female, 2.2:1; average age at onset, 36.2 yrs; average duration of attack, 6.2 wks; average interval between attacks, 91.3 wks.

chamber during attack; (3) absence of mutton fat keratic precipitates; (4) history of previous acute anterior uveitis; (5) age at the onset of acute anterior uveitis less than 40 years; and (6) associated ankylosing spondylitis or Reiter's syndrome. All patients were classified according to the presence of these criteria (Fig. 3). In the group of patients positive for HLA-B27, 64 of 73 (88%) fulfilled four or more of these criteria; 39 (53%) fulfilled five or more; and 14 (19%) fulfilled all six criteria. In the group of patients negative for HLA-B27, only 11 of 71 (15%) fulfilled four or more of these criteria and two (3%) fulfilled five criteria. No one in this group fulfilled all six criteria ($P < .001$). If the associated rheumatic disease was not included in these criteria, the feature score of four or more criteria was present in 58 of 73 (80%) of patients positive for HLA-B27 and ten of 71 (14%) patients negative for HLA-B27.

Of 71 patients negative for HLA-B27, a specific diagnosis was made for 28 (39%) (Table 9). There were three patients in whom the diagnosis of presumed ocular sarcoidosis was made based on radiologic chest examination and increased angiotensin-converting enzyme levels, but without histologic confirmation of this disease.

All patients were subdivided according to the presence of recurrent acute anterior uveitis

TABLE 8
COMPLICATIONS OF ACUTE ANTERIOR UVEITIS IN
PATIENTS POSITIVE FOR HLA-B27 WITH
AND WITHOUT ANKYLOSING SPONDYLITIS

COMPLICATIONS	ANKYLOSING SPONDYLITIS (N = 43)		NONANKYLOSING SPONDYLITIS (N = 60)	
	NO. OF AFFECTED EYES	(%)	NO. OF AFFECTED EYES	(%)
Cataract	3	(7)	11	(18)
Glaucoma	2	(5)	6	(10)
Persisting posterior synechiae	16	(37)	20	(33)
Visual acuity $\leq 20/60$	0	(0)	6	(10)
Visual acuity $\leq 20/200$	0	(0)	3	(5)
Total No. of eyes affected	20	(47)	28	(47)

(Table 10). Recurrent acute anterior uveitis was significantly more frequent in patients positive for HLA-B27 ($P < .005$). Patients with recurrent disease suffered more frequently from ocular complications compared to patients with only one acute anterior uveitis attack.

Discussion

This study shows that the HLA-B27-associated acute anterior uveitis is a separate clinical entity. Typical clinical features are unilateral violent iridocyclitis associated with fibrin in the anterior chamber and the absence of mutton fat keratic precipitates. The inflammatory activity usually lasts six weeks and recurs after long disease-free periods with unilateral alternating eye involvement. This ocular syndrome occurs frequently in young male adults and has a high association with systemic rheumatic disease (Table 5).

Six clinical criteria were selected to define acute anterior uveitis associated with HLA-B27. The presence of all six criteria was observed only in patients positive for HLA-B27; a combination of five criteria was observed in 93% of patients positive for HLA-B27 and in 7% of patients negative for HLA-B27 (Fig. 3). Furthermore, 53% of patients positive for HLA-B27 fulfilled five or more of the selected criteria. The presence of five or more criteria describes almost exclusively patients with HLA-B27 positive acute anterior uveitis and may therefore be accepted as being diagnostic of HLA-B27-associated acute anterior uveitis.

Favorable ocular prognosis of the HLA-B27-

Fig. 3 (Rothova and associates). Number of clinical features present in patients with positive and negative HLA-B27 acute anterior uveitis. Percentages of patients positive and negative for HLA-B27 from the total number of patients fulfilling a certain score are shown above each bar (for the selected criteria, see Results section).

TABLE 9
SPECIFIC DIAGNOSIS IN PATIENTS WITH NEGATIVE
HLA-B27 ACUTE ANTERIOR UVEITIS

SPECIFIC DIAGNOSIS	NO. (N = 71)	(%)
Trauma	8	(11)
Diabetes mellitus	6	(9)
Syphilis*	3	(4)
Varicella zoster virus	3	(4)
Definite sarcoidosis	2	(3)
Presumed sarcoidosis	3	(4)
Fuchs' heterochromic cyclitis	1	(1)
Autoimmune vasculitis	1	(1)
Impending corneal graft rejection	1	(1)
Unknown	43	(61)

*There were two additional cases of syphilis, which were adequately treated early during the course of the disease (in both cases many years before the onset of acute anterior uveitis). Acute anterior uveitis in these patients was considered not to be related to their past syphilitic infection.

TABLE 10
OCULAR COMPLICATIONS OF ACUTE ANTERIOR
UVEITIS IN RELATION TO THE RECURRENCE
OF THE DISEASE

COMPLICATIONS	SINGLE ATTACK (N = 78)		RECURRENT ATTACKS (N = 117)	
	NO.*	(%)	NO.†	(%)
Cataract‡	2	(3)	18	(15)
Glaucoma	2	(3)	8	(7)
Cystoid macular edema	0	(0)	4	(3)
Persisting posterior synechiae§	8	(10)	43	(37)
Visual acuity ≤20/60	1	(1)	6	(5)
Visual acuity ≤20/200	0	(0)	4	(3)
Total No. of eyes affected§	8	(10)	58	(50)

* No. of affected eyes in 69 patients, including 26 (38%) positive for HLA-B27.

† No. of affected eyes in 75 patients, including 47 (63%) positive for HLA-B27.

‡ P<.01.

§ P<.001.

associated acute anterior uveitis has been reported.^{8,9} The increased prevalence of complications in HLA-B27 negative anterior uveitis has been attributed to the more prolonged inflammatory activity in these patients. In the present series, the patient group consisted of strictly selected acute uveitis cases with an inflammatory activity lasting less than three months. As patients negative for HLA-B27 tend to develop chronic cases of anterior uveitis, we excluded all such patients from our study. The visual outcome as well as the frequency of several ocular complications, such as cataract, glaucoma, or cystoid macular edema, in patients positive for HLA-B27 did not significantly differ from patients negative for HLA-B27. However, if these uveitis sequelae are considered as one group, then the number of eyes in patients positive for HLA-B27 compared to eyes in patients negative for HLA-B27 that are damaged by uveitis is significantly higher ($P < .001$). This suggests that an individual patient positive for HLA-B27 will likely develop uveitis complications. That patients positive for HLA-B27 have a severe iridocyclitis, which often relapses, may be why patients with HLA-B27 positive acute anterior uveitis have a serious prognosis compared to those with other acute forms of anterior uveitis. When all patients (independent of HLA-B27) were subdivided according to the recurrence rate of uveitis (Table 10), the patients with only one acute anterior uveitis attack had a better ocular outcome compared to the patients with recurrent disease. Visual outcome and the incidence of complications are probably related to the recurrence rate of acute anterior uveitis.

The reported differences in acute anterior uveitis severity between men and women⁹ were not found in this study, nor were any clinical distinctions in acute anterior uveitis observed between patients with and without ankylosing spondylitis. The eyes with decreased visual acuity were found only in patients with non-ankylosing spondylitis. All of these patients had at least three recurrences of acute anterior uveitis.

In our series the syndrome of recurrent severe unilateral acute anterior uveitis was not restricted to HLA-B27 positive patients. In the patients negative for HLA-B27, 11 (15%) showed similar clinical features, namely repeated unilateral acute anterior uveitis attacks with fibrin in the anterior chamber. Of these 11 patients, one had ankylosing spondylitis and two others had psoriasis (without arthropathy). These findings along with genetic and

epidemiologic studies¹⁵ suggest that other factors in addition to HLA-B27 cause the so-called HLA-B27-associated disorders.

An infective cause for HLA-B27-associated disorders has been postulated for many years,¹⁶ especially the infection of mucosal surfaces by gram-negative bacteria.¹⁷ In this study the reported incidence of preceding systemic infections was equal in both HLA-B27 positive and negative groups of patients. The seasonal variation of acute anterior uveitis attacks, as observed in the HLA-B27 positive group, could possibly be related to certain environmental factors, such as subclinical bacterial infections.

Earlier studies have shown that approximately 50% of patients with HLA-B27 positive acute anterior uveitis suffer from associated rheumatic disorders. In our study 37 (51%) of patients with HLA-B27 positive acute anterior uveitis suffered from seronegative spondyloarthropathies (ankylosing spondylitis, Reiter's syndrome, psoriatic arthropathy). The remaining 36 patients (49%) had no other HLA-B27-associated disease. Previous studies have suggested that acute anterior uveitis and ankylosing spondylitis are independent diseases, both strongly associated with HLA-B27.^{18,19} In the HLA-B27 positive population the incidence of ankylosing spondylitis is 1%,¹⁵ which is much lower than the frequency of 39% found in our patients with HLA-B27 positive acute anterior uveitis. This suggests that these diseases which are often found independently are, by unknown mechanisms, related. HLA-B27-associated disorders may not be independent of each other but instead have a variable disease expression, possibly depending on environmental and genetic factors. A hereditary theory has been proposed, which suggests that the clinical picture depends on complex genetic factors that influence the penetrance and expression of the disease.²⁰ However, the role of environmental and genetic factors in the pathogenesis of HLA-B27-associated disorders is not yet clear.

Based on this study we concluded that HLA-B27-associated acute anterior uveitis has its own distinct clinical picture and prognosis. Furthermore, an association of more than 50% is observed with various seronegative spondyloarthropathies. While the ocular outcome for patients with HLA-B27-associated acute anterior uveitis is favorable when compared to patients with other types of anterior uveitis, the prognosis within the group of acute uveal inflammations is serious.

From the data presented here we conclude

that HLA-B27 typing in patients with anterior uveitis is an important diagnostic tool. It provides information concerning the clinical picture and prognosis of these patients and enables the early diagnosis of associated systemic rheumatic disease. Further studies concerning the role of HLA-B27 and other factors involved in the pathogenesis of acute anterior uveitis are required for a better understanding of this disease process.

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