ABSTRACT: Type of study: Prevalence study.

Objectives: Despite pityriasis lichenoides is an uncommon dermatosis, we observed 12 cases in the last 3 years. By this means, we review clinical and histopathologic findings of all patients with pityriasis lichenoides seen at our Division. Furthermore, since pathogenic features of the disease are unknown, we performed HLA class I and II typings to search for possible immunogenetic markers for pityriasis lichenoides.

Methods: Twenty-one patients with biopsy-proven diagnosis of pityriasis lichenoides were evaluated. HLA class I and II antigens were typed using conventional serological procedures.

Results: Children and young adults were predominantly affected. Most of the cases were seen in fall and winter time. Typical disseminated lesions were observed more frequently. Both acute and chronic patterns were observed at histology. Compared to controls, the HLA-B17 antigen was overrepresented in patients (P < 0.005).

Conclusions: Although pityriasis lichenoides remains a cutaneous disease of undetermined origin, our findings show that the disease is associated with the HLA-B17 antigen.


1. INTRODUCTION

Pityriasis lichenoides (PL) is an uncommon self-limited dermatosis which occurs at any age, particularly in children and young adults\(^1,2,3\). Two variants of the disease are described: a mild chronic form referred to as pityriasis lichenoides chronica (PLC), and an acute form also known as pityriasis lichenoides et varioliformis acuta (PLEVA)\(^2\). Despite the treatment with antimicrobials are somewhat beneficial, etiopathogenic mechanisms have not been elucidated. Immune complexes, cell-mediated immunity and endothelial cells bearing HLA class II antigens have been implicated in the pathogenesis of the disease\(^4,8\). Immunogenetic studies on the susceptibility to this dermatosis have never been accomplished. In this study, besides clinical and laboratory evaluation of, we typed HLA class I and II antigens in a series of patients presenting with pityriasis lichenoides.
2. MATERIAL AND METHODS

2.1. Patients

A total of 21 patients seen at the University Hospital of the Faculty of Medicine of Ribeirão Preto, São Paulo, Brazil, from 1978 to 1993, were retrospectively studied. The men to women ratio was 1.6, with ages varying from 10 to 60 years (median 20). Diagnosis of pityriasis lichenoides was performed on the basis of clinical and histopathological features.

2.2. Controls

A total of 100 blood donors from same geographical area and presumably of similar ethnic background were also typed for HLA antigens.

2.3. HLA antigens

Mononuclear peripheral cells were isolated using Ficoll-Hypaque gradient at a density of 1.077 g/l. B lymphocytes were obtained by adherence to nylon wool. HLA typing was performed by a microlymphocytotoxicity assay\(^{(9)}\), using commercially available antisera (Pel Freez, Gen Track-USA; Biotest-Germany). A total of 72 HLA class I (A, B) and class II (DR,DQ) specificities were used. Complement was obtained from a pool of normal rabbit sera.

2.4. Statistical analysis

Comparisons of HLA frequency between patients and controls was performed using the bicaudal Fisher exact test, correcting the \(P\) value according to the number of HLA specificities. Differences were considered significant at \(P < 0.05\). The relative risk (RR) which indicates how many times more often the disease occurs in individuals with the HLA antigen compared to those without it, and the etiologic fraction (EF) which defines the attributable risk at the population level were also calculated\(^{(10)}\).

3. RESULTS

Most of the cases was observed among children and young adults (Figure 1). More than 79% of the cases occurred in Brazilian fall and winter seasons (April to June and July to September, respectively). With regard to distribution of cutaneous lesions, 71% of patients presented typical lesions disseminated along the whole body, whereas 19% presented with lesions restricted to the trunk, neck, and proximal aspects of extremities. Only 10% of patients presented peripheral lesions confined to upper and lower limbs. Fever preceded cutaneous lesions in 14% of patients, and pruritus was seen along with lesions in 76% of

![Figure 1: Bimodal distribution of pityriasis lichenoides cases according to age (years) from 1978 to 1993. Sex distribution is also shown.](image-url)
patients. Hypopigmented macules were observed in 48% even on the first cutaneous examination. Both erythematous papules with central scales (affecting also the scalp) and mucous membranes involvement were seen in 14% of cases, respectively. Adenomegaly was observed in 38% of patients. Nineteen percent of patients had both lesions of PLEVA and PLC, however, histological features of typical PLEVA or PLC were observed in 33% and 44% of the cases, respectively.

HLA typing was performed in only 14 patients. The frequency of HLA-B17 antigen in patients was 36% whereas in control individuals this antigen was observed only in 1% (Figure 2).

The comparison of the frequency of HLA-B17 antigen in patients was significantly increased when compared to controls ($P = 0.005$). The HLA-B17 antigen conferred an RR of 55 and an EF of 35. The frequency of HLA class I and II antigens is shown in (Table I), where the comparisons of HLA class I or II antigens between patients and controls disclosed no significant differences.

4. DISCUSSION

The clinical and laboratory features presented by the patients of this series were similar to those reported by other authors$^{1,2,3}$, emphasizing the predominance of the disease in children and young adults, and the occurrence of the disease predominantly in fall and winter time.

<table>
<thead>
<tr>
<th>HLA-A %</th>
<th>HLA-B %</th>
<th>HLA-DR %</th>
<th>HLA-DQ %</th>
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<td>P</td>
<td>C</td>
<td>P</td>
<td>C</td>
</tr>
<tr>
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<td>B7</td>
<td>21 (14)</td>
</tr>
<tr>
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<td>B15</td>
<td>7 (2)</td>
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<td>7 (12)</td>
<td>B17</td>
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<td>A33</td>
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</table>

* HLA-B17 corrected $P$ value $< 0.005$, relative risk $= 55$, etiologic fraction $= 35$.

P = patients C = controls
RESUMO: Modelo de estudo: Estudo de prevalência.

Objetivos: Embora a pitíriase liquenóide seja uma dermatose incomum, 12 casos foram por nós observados nos últimos três anos. Assim, neste estudo, avaliamos os perfis clínicos e histopatológicos dos pacientes com pitíriase liquenóide, atendidos na Divisão de Dermatologia. Além disso, tipificamos os antígenos HLA de classes I e II nesses pacientes.

Metodologia: Foram estudados 21 pacientes com diagnóstico clínico e histopatológico de pitíriase liquenóide. As tipificações dos antígenos de histocompatibilidade de classes I e II foram realizadas, utilizando-se métodos sorológicos.

Resultados: A maioria dos casos ocorreu entre crianças e ou adultos jovens, no outono e inverno. As lesões típicas de forma disseminada foram as mais freqüentes. Os achados histopatológicos mostraram lesões dos tipos agudo e crônico. O antígeno HLA-B17 estava significamente aumentado nos pacientes em relação aos controles ($P < 0.005$).

Conclusões: Embora a etiologia da pitíriase liquenóide não seja conhecida, os achados aqui relatados mostram que o marcador HLA-B17 é prevalente entre os doentes.

REFERENCES


