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Association of psoriasis and psoriatic arthritis with human leukocyte antigen and killer cell immunoglobulin–like receptor gene frequency: A multiethnic population study

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Objectives: To type human leukocyte antigen (HLA) classes I and II and killer cell immunoglobulin–like receptor (KIR) genes of patients with psoriasis vulgaris and correlate HLA markers with epidemiologic and evolutional aspects.

Methods: Fifty-five patients were evaluated and questioned about ethnic background, family, and disease history and compared with 134 bone marrow donors as controls. Allelic typing of class I and II and KIR genes were determined by polymerase chain reaction method using sequence-specific primers (PCR-SSP) and PCR using sequence-specific oligonucleotides (PPR-SSO) hybridization.

Results: Patients were a mean of 42.4 years old; 41.8% were female and 58.2% were male. HLA-B*57 was found in 23.6% of patients and 7.5% of controls ($P = .00200$; odds ratio [OR] = 3.8381) and HLA-Cw*06 in 29.1% of patients and 16.4% of controls ($P = .04832$; OR = 2.0886). HLA-B*57 and HLA-Cw*18 were significantly present in patients with arthritis ($P = .00104$; OR = 6.6769 and $P = .00269$; OR = 16.50, respectively). HLA-B*57 was significantly present in patients with a history of erythroderma ($P = .00548$; OR = 5.1059), as was HLA-Cw*06 ($P = .02158$; OR = 3.0545). HLA-B*57 was frequent in patients with history of hospital admission ($P = .00094$; OR = 7.8909) and systemic treatment ($P = .00011$; OR = 5.3733). Haplotype HLA-A*02 B*57 Cw*06 DQB1*03 DRB1*07 was the most common among the patients ($P = .00069$; OR = 3.528). KIR2DL2 was found in 53.0% of controls and 29.1% of patients ($P = .00276$; OR = 0.3634).

Conclusions: HLA-B*57 and HLA-Cw*06 indicated risk in the patient groups. KIR2DL2 was high in controls, indicating protection. HLA-Cw*18 and KIR2DL2 were not previously associated with psoriasis.

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Measuring the impact on quality of life of infants with atopic dermatitis in a dedicated clinic

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Background: Atopic dermatitis (AD) accounts for 10% to 20% of referrals to secondary care dermatology, often requiring multiple visits and occupying valuable time and resources. The psychological, physical, and social impact of AD on children and their family has been, until recently, underappreciated.

Objective: We assessed the impact on quality of life of AD in infants and their families in a clinical setting by using internationally validated questionnaires.

Methods: The parents of 51 infants with AD attending a dedicated pediatric dermatology clinic completed quality of life (QOL) questionnaires, including the Infants' Dermatitis Quality of Life Index (IDQOL), Dermatitis Family Impact (DFI), and Patient Oriented Eczema Measure (POEM). Severity of AD was graded by Three Item Severity Score (TISS) and also on a 5-point scale from 0 as very severe to 4 as completely clear by parents and the doctor. We also elicited parent's fears about their children with AD in an open-ended questionnaire.

Results: Fifty-one infants (26 new, 25 review) with a mean age of 23 months were seen over a period of 6 months. The mean IDQOL was 8.04 (range, 0-22); the mean DFI score was 8.7 (range, 0-27), and the POEM score was 12.3 (range, 0-28). The mean TISS was 4.25 (range, 0-9). In the parent's and doctor's assessment of 5-point scale severity, the means were 2.09 and 2.25, respectively. The highest-scoring IDQOL items were for itching/scratching, problems at bath time, and time taken to fall asleep. The highest scoring DFI items were tiredness/exhaustion, affect on the caregiver's life, sleep loss, cleaning/washing, and expenditure. There was a strong positive correlation between severity and QOL scores. Twenty-one patients (41%) scored 10 or more in the IDQOL and DFI. Examples of parent's fears about their child's AD included fear of infection, future deterioration/flaring, persistence, unsightly appearance, and fear of use of steroids.

Conclusions: Our results confirm that AD has a significant impact on QOL on infants and their families. We found that our dedicated AD clinic allows us to focus on the impact of the disease on both child and family. Knowledge of the high-scoring items on QOL questionnaire has allowed us to target these factors in our consultation.

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Serum sickness–like reaction in children: A retrospective review

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Background: Adverse drug reactions are estimated to occur amongst 0.9% to 16.8% of hospitalized children in the United States. Serum sickness–like reaction (SSLR), recognized since the late 1970s, is estimated to occur in 0.06% to 0.5% of pediatric patients. Drugs are implicated in about only 30% of published reports of SSLR, and 60% of these cases are related to antibiotics. It is most commonly characterized by rash, fever, arthralgia, and arthritis. Although SSLR is most commonly seen after oral antibiotic exposure, historically, cefaclor in particular was frequently associated with SSLR, estimated to occur in 1% to 2% of all children who received the drug. Despite a decline in usage of cefaclor, however, SSLR continues to occur in the pediatric population, in proposed association with a variety of antibiotic agents.

Objectives: The goals of this study were to review the presentation patterns, associated pharmacologic agents, and disease course, and to compare these findings to those reported in the literature to date to examine for evolving trends.

Methods: A retrospective chart review of pediatric patients seen as outpatients in the division of dermatology at Children's Memorial Hospital over the last 12 years was conducted. Charts were identified based on four ICD9 codes for diagnoses such as "drug eruption" and "urticaria unspecified," and also from kodachrome and digital photographs. Records of patients diagnosed by the attending pediatric dermatologist with "serum sickness–like reaction" were reviewed for standardized data collection.

Results: Nineteen charts of patients with SSLR were reviewed. Seventeen of the 19 patients had been exposed to antibiotics within 3 weeks before presentation, and the other two patients were diagnosed with SSLR of presumed viral etiology. Of the 17 patients with antibiotic associated SSLR, 13 were exposed to one antibiotic only and four were exposed to two to three antibiotics. The major indication for the antibiotic therapy was otitis media, cited in 64% of patients. In terms of specific medications, 95% had a β-lactam exposure, with 76% having an amoxicillin exposure. In regards to presentation, 59% of patients were between the ages of 6 and 24 months and 53% developed symptoms between 7 and 13 days after exposure. All of the patients had a rash: 88% were urticarial, with one-third having purple urticaria only and 53% having mixed typical and purple urticaria. Sixty five percent had fever, 77% had joint complaints, and 47% had difficulty with ambulation. Diagnostic studies were limited—76% had urinalyses, 85% of which were normal. All were treated with removal of the offending agent and 65% were given antihistamines and/or nonsteroidal antiinflammatory drugs. Fifty nine percent were treated with a tapering course of steroids. Follow-up data was available for only 3 patients—symptoms were resolved or still resolving by 7 to 13 days after the initial appointment.

Conclusions: Antibiotic-associated SSLR is still an observed reaction pattern in the post-cefaclor era. SSLR is highly associated with antibiotic exposure, with amoxicillin and amoxicillin with clavulanic acid being the most commonly associated in this review. Cephalosporins were associated in only 16% of patients in whom a single antibiotic was received. This review supports previous data with regard to age and timing of onset and presentation pattern of SSLR.

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POSTER DISCUSSION SESSION 04—TREATMENT/DIAGNOSIS

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Trichoscopic criteria of female pattern hair loss

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Differential diagnosis of chronic hair loss remains a challenge in dermatology. Trichoscopy is a newly developed method of hair image analysis based on videodermatoscopy of the hair and scalp. This method allows visualization of hair shafts at high magnification and performing measurements, such as hair shaft thickness, without the need of removing hair for diagnostic purposes. The aim of the study was to establish the trichoscopic criteria of female androgenic alopecia and chronic telogen effluvium. Trichoscopy was performed in 273 females (123 with androgenic alopecia, 76 with chronic telogen effluvium, and 74 healthy controls) and more obvious differences between healthy controls, androgenic alopecia, and telogen effluvium were analyzed. Average hair thickness in frontal area versus occiput was respectively: 0.061 ± 0.008 mm versus 0.059 ± 0.007 mm in healthy controls, 0.047 ± 0.007 mm versus 0.053 ± 0.008 mm in androgenic alopecia, and 0.055 ± 0.007 mm versus 0.053 ± 0.009 mm in chronic telogen effluvium. Mean percentage of thin hairs (<0.03 mm) in androgenic alopecia was $20.4 \pm 12\%$ and was significantly higher than in healthy controls ($5.9 \pm 4.1\%$; $P < .001$) or in chronic telogen effluvium ($10.5 \pm 3.9\%$; $P < .001$). Androgenic alopecia differed by significantly increased percentage of yellow dots, follicles with perifollicular discoloration, and single-hair pilosebaceous units. Classification and regression tree analysis was performed to establish following diagnostic criteria. Major criteria: increased number of yellow dots (more than four in four fields of vision at $\times 70$ magnification) and thin hairs, and decreased average hair thickness in the frontal area. Minor criteria: increased frontal area to occiput ratio of single-hair units (>2:1), vellus hairs (>1.5:1), and follicles with perifollicular discoloration (>3:1). Fulfillments of two major criteria or one major and two minor is diagnostic for female androgenic alopecia. In conclusion, the results of our study indicate that the diagnosis of female androgenetic alopecia may be established based solely on trichoscopy criteria.

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