



Allergologia et immunopathologia

Sociedad Española de Inmunología Clínica,
Alergología y Asma Pediátrica

www.elsevier.es/ai



ORIGINAL ARTICLE

Sleep-related disorders in Latin-American children with atopic dermatitis: A case control study

M. Urrutia-Pereira^a, D. Solé^{b,*}, N.A. Rosario^c, H.J.C. Neto^c, V. Acosta^d,
C.F. Almendarez^e, M.M. Avalos^f, H. Badellino^g, F. Berroa^h, M. Álvarez-Castellóⁱ,
A.J. Castillo^h, R.L. Castro-Almarales^j, M.M. De la Cruz^h, A.M. Cepeda^k,
C. Fernandez^l, M. González-León^m, J. Lozano-Saenzⁿ, C. Sanchez-Silot^o,
J.C. Sisul-Alvariza^p, M. Valentin-Rostan^q, R.O.S. Sarni^r

^a Unipampa Federal University, Uruguiana, Rio Grande do Sul, Brazil

^b Division of Allergy and Clinical Immunology, Federal University of São Paulo, São Paulo, Brazil

^c Department of Pediatrics, Federal University of Paraná, Paraná, Brazil

^d Dr Avelino L. Castelán Pediatric Hospital, Chaco, Argentina

^e Centro de Asma y Alergia, Tegucigalpa, Honduras

^f Allergy Service of the Hospital ISSSTE, Veracruz, Mexico

^g Clínica Regional del Este, Córdoba, Argentina

^h Centro de Medicina Avanzada Dr. Abel González, Dominican Republic

ⁱ Hospital Universitario General Calixto García, Cuba

^j Centro Nacional de Biopreparados, Havana, Cuba

^k Hospital Universitario Metropolitano, Barranquilla, Colombia

^l Universidad Nacional Del Este, Asuncion, Paraguay

^m Centro de Pesquisa: Consultorios del médico de familia, Havana, Cuba

ⁿ Centro Médico San Angel, Xalapa, Mexico

^o Hospital Universitario Infantil Sur, Cuba

^p Clínica de Alergia y Asma, Asuncion, Paraguay

^q Hospital Pediátrico Pereira Rossell, Montevideo, Uruguay

^r ABC Foundation School of Medicine, Brazil

Received 20 July 2016; accepted 19 August 2016

KEYWORDS

Atopic dermatitis;
Children;
Questionnaire;
SCORAD;
Sleep disorders

Abstract

Background: Atopic dermatitis (AD) has been associated with impairment of sleep. The aim of this study was to evaluate sleep disorders in AD Latin-American children (4–10 years) from nine countries, and in normal controls (C).

Methods: Parents from 454 C and 340 AD children from referral clinics answered the Children Sleep Habits Questionnaire (CSHQ), a one-week retrospective 33 questions survey under seven

* Corresponding author.

E-mail address: dirceu.sole@unifesp.br (D. Solé).

items (bedtime resistance, sleep duration, sleep anxiety, night awakening, parasomnias, sleep-disordered breathing and daytime sleepiness). Total CSHQ score and items were analysed in both C and AD groups. Spearman's correlation coefficient between SCORAD (Scoring atopic dermatitis), all subscales and total CSHQ were also obtained.

Results: C and AD groups were similar regarding age, however, significantly higher values for total CSHQ (62.2 ± 16.1 vs 53.3 ± 12.7 , respectively) and items were observed among AD children in comparison to C, and they were higher among those with moderate (54.8%) or severe (4.3%) AD. Except for sleep duration ($r = -0.02$, $p = 0.698$), there was a significant Spearman's correlation index for bedtime resistance (0.24 , $p < 0.0001$), sleep anxiety (0.29 , $p < 0.0001$), night awakening (0.36 , $p < 0.0001$), parasomnias (0.54 , $p < 0.0001$), sleep-disordered breathing (0.42 , $p < 0.0001$), daytime sleepiness (0.26 , $p < 0.0001$) and total CSHQ (0.46 , $p < 0.0001$). AD patients had significantly higher elevated body mass index.

Conclusion: Latin-American children with AD have sleep disorders despite treatment, and those with moderate to severe forms had marked changes in CSHQ.

© 2016 SEICAP. Published by Elsevier España, S.L.U. All rights reserved.

Introduction

Atopic dermatitis (AD) is a complex chronic inflammatory skin disease, caused by the interaction of multiple genetic and environmental factors. Although beginning early in life, 90% of cases are manifested before the age of five.¹

Since it is a chronic and recurrent disease, its control is a real challenge because AD interferes in social relationships, psychological status and daily activities of patients.^{2,3}

Observational studies have identified sleep disorders in 47–60% of children with AD⁴ reaching 83% during exacerbations and can even persist in AD remission.⁵ The frequency and duration of sleep disorders overnight provide a simple measure of the effect that AD has on patient's quality of life.^{2,3}

Difficulty falling asleep, night-time awakenings, and difficulty waking up in the morning, have been observed in more than half of patients with AD.⁶ In addition, AD impairs the daily functioning of patients and their parents, it imposes increased anxiety and/or depression of parents. Furthermore, AD induces an overload with patient care, favouring the development of conflicts between parents and healthy siblings by affecting the family structure^{3,7} and the emotional and social well-being of all family members.⁸

The recognition of the emotional burden AD and sleep disorders may impose on the home, school and work environment, as well as the emotional status of parents, must always be considered in clinical evaluation of patients,⁶ since these factors contribute to the severity of this disease.^{2,3} It is also important to know whether the child's sleep needs are being met.⁹

Written questionnaires (WQ), easy to administrate and highly cost-effective, have been increasingly used to assess children's sleep behaviour, although they only accomplish subjective and retrospective assessments.

The Children's Sleep Habits Questionnaire (CSHQ) is an example of such an epidemiologic tool. Originally available in English,¹⁰ it was translated into and validated for Portuguese¹¹ and Spanish as well,¹² and proved to be a useful tool in the evaluation of sleep-related disorders in children.

Although AD is a disease of high prevalence that can interfere with the quality of life of patients, few studies have evaluated the relationship between AD and sleep disorders in Latin American children attending specialty clinics.

Identifying sleep disorders in children with AD from different populations and cultures will allow to determine the possible interactions of factors in their environment that make them more vulnerable to increased morbidity of AD.¹³

Patients and methods

A multicentre cross-sectional study enrolled children, 4–10 years old from nine countries in Latin America (Argentina [AD = 30; Control (C) = 51]; Brazil [AD = 49; C = 62]; Colombia [AD = 31; C = 50]; Cuba [AD = 48; C = 50]; Dominican Republic [AD = 32; C = 50]; Honduras [AD = 30; C = 50]; Mexico [AD = 35; C = 65]; Paraguay [AD = 45; C = 39]; and Uruguay [AD = 40; C = 37]) who attended allergy clinics. The study groups were composed of children with AD¹⁴ and a matched control group (age and socioeconomic status) of non-allergic healthy individuals that were evaluated from March to April 2015. Non-allergic individuals apparently healthy were followed in each paediatric clinic for routine visits and immunisations. None of them had any chronic disease, malformation or genetic disease.

Each study site was requested to include at least 30 patients and 30 controls, matched for age, gender and socioeconomic status. Children were admitted when they attended for routine visit in each participating centre, from March to April 2015, until the number of settled cases was reached. On admission, subjects were classified according to the presence or absence of AD. All parents and/or guardians signed informed consent forms and answered the CSHQ, a retrospective and recall questionnaire about sleep-related symptoms the week prior to entering the study. Brazil used the Portuguese validated CSHQ version¹¹ and other Latin-American countries used the Spanish validated version.¹²

The CSHQ consists of 33 questions divided into items, namely: resistance at bedtime (goes to bed at same time; falls asleep in own bed; falls asleep in other's bed; needs parent in the room to sleep; struggles at bedtime; afraid of

Download English Version:

<https://daneshyari.com/en/article/8736071>

Download Persian Version:

<https://daneshyari.com/article/8736071>

[Daneshyari.com](https://daneshyari.com)