



ORIGINAL ARTICLE

Respiratory function in children of asthmatic mothers[☆]

Marco A. Valadares^{a,*}, Ricardo Q. Gurgel^b, Enaldo V. Melo^c, Alzira M.D.N. Guimarães^d, Kildane M.A. Guedes^e, Neuly A.F. Rocha^f, Maria L.D. Almeida^g

^aMD, MSc in Health Sciences, Universidade Federal de Sergipe (UFS), São Cristóvão, SE, Brazil. Assistant Professor, Departamento de Medicina, UFS, São Cristóvão, SE, Brazil

^bMD, PhD in Child and Adolescent Health, Universidade de São Paulo (USP), São Paulo, SP, Brazil. Adjunct Professor, Departamento de Medicina, UFS, São Cristóvão, SE, Brazil

^cMD, PhD in Health Sciences, UFS, São Cristóvão, SE, Brazil. Professor, Departamento de Medicina, UFS, São Cristóvão, SE, Brazil

^dNurse, PhD in Health Sciences, Faculdade de Medicina de Ribeirão Preto, Ribeirão Preto, SP, Brazil. Adjunct Professor, Departamento de Enfermagem, UFS, São Cristóvão, SE, Brazil

^eDental Surgeon, PhD Candidate in Health Sciences, UFS, São Cristóvão, SE, Brazil

^fMD, MSc in Health Sciences, UFS, São Cristóvão, SE, Brazil

^gMD, PhD in Child and Adolescent Health, USP, São Paulo, SP, Brazil. Adjunct Professor, Departamento de Medicina, UFS, São Cristóvão, SE, Brazil

Received 26 July 2012; accepted 17 October 2012

KEYWORDS

Asthma;
Child;
Spirometry

Abstract

Objective: To evaluate lung function and clinical manifestations suggestive of asthma in children of mothers with a reported medical diagnosis of asthma.

Methods: An observational cross-sectional analytical study nested in a cohort of 4,757 pregnant women. A total of 86 six-year-old children were evaluated, born to mothers with a medical diagnosis of asthma before pregnancy. Information was collected regarding clinical symptoms of atopy and respiratory diseases, as well as socioeconomic and exposure variables; the children were submitted to spirometry.

Results: Spirometric alterations were observed in 30.3% of cases, with a prevalence of asthma in those who had an obstructive pattern. 9.3% of the children had a previous medical diagnosis of asthma; however, the established diagnosis based on the presence and frequency of asthma symptoms was 18.6%. Of the 86 participating children, 37.2% had a score of five or more points in the International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire, which was associated with spirometry alterations ($p = 0.002$). After multiple logistic regression analysis, higher paternal education, higher

[☆]Please, cite this article as: Valadares MA, Gurgel RQ, Melo EV, Guimarães AM, Guedes KM, Rocha NA, et al. Respiratory function in children of asthmatic mothers. J Pediatr (Rio J). 2013;89:158–63.

*Corresponding author.

E-mail: valadares-oliveira@uol.com.br (M.A. Valadares).

number of bedrooms in the family's home, and mother who did not have "wheezing" episodes during pregnancy were statistically significant as protective factors for the presence of respiratory disorder detected by spirometry.

Conclusions: The frequency of spirometry alterations in children of asthmatic mothers was high; the restrictive pattern was more often observed than the obstructive. There was a higher incidence of obstructive test results in those who presented clinical symptoms of asthma, with a higher frequency of clinical diagnosis of asthma than that found in the literature.

© 2013 Sociedade Brasileira de Pediatria. Published by Elsevier Editora Ltda.

Este é um artigo Open Access sob a licença de [CC BY-NC-ND](#)

PALAVRAS-CHAVE

Asma;
Criança;
Espirometria

Função respiratória em filhos de mães asmáticas

Resumo

Objetivo: Avaliar a função pulmonar e as manifestações clínicas sugestivas de asma em filhos de mães com diagnóstico médico referido de asma.

Métodos: Estudo observacional transversal analítico aninhado a uma coorte de 4.757 parturientes. Foram avaliadas 86 crianças aos seis anos de idade, filhas de mães com diagnóstico médico de asma antes da gestação. Foram coletadas informações referentes a sintomatologias clínicas de atopias e doenças respiratórias, variáveis socioeconômicas e de exposição; tendo sido as crianças submetidas à espirometria.

Resultados: Foram encontrados 30,3% de alterações espirométricas, havendo predomínio do diagnóstico de asma nos que apresentaram padrão obstrutivo. Diagnóstico médico progressivo de asma ocorreu em 9,3% das crianças; contudo, o diagnóstico estabelecido a partir da presença e frequência dos sintomas de asma representou 18,6%. Das 86 crianças participantes, 37,2% tiveram um escore de cinco ou mais pontos no questionário ISAAC, estando isso associado à alteração do padrão espirométrico ($p = 0,002$). Após a regressão logística múltipla, maior escolaridade paterna, maior número de quartos no domicílio e o fato de a mãe não ter apresentado "chiado" durante a gestação foram estatisticamente significantes como fatores protetores para a presença de distúrbio ventilatório à espirometria.

Conclusões: A frequência de alterações do teste espirométrico em filhos de mães asmáticas foi alta, com o padrão restritivo ocorrendo mais vezes que o obstrutivo. Houve uma maior ocorrência de exames obstrutivos naqueles que apresentavam sintomatologia clínica de asma, com uma frequência de diagnóstico clínico de asma superior à encontrada na literatura.

© 2013 Sociedade Brasileira de Pediatria. Publicado por Elsevier Editora Ltda.

Este é um artigo Open Access sob a licença de [CC BY-NC-ND](#)

Introduction

Asthma is considered the third leading cause of hospitalization among children and young adults in Brazil. There is evidence that its prevalence and mortality are increasing worldwide.^{1,2}

Over the last 30 years, the world's population has experienced an era of technological evolution, which resulted in profound changes in lifestyle and eating habits. Concomitantly, there has been improvement in sanitary conditions and reduction of infectious diseases. Nevertheless, asthma continues to have a high impact on the morbidity and mortality of several age groups and all segments of society.^{3,4}

Spirometry has an important role in the respiratory evaluation of children older than 6 years, as well as that of

adults, due to its simplicity and low cost, combined with good reproducibility. Spirometry is also extensively used in research; it is the most common laboratory outcome in respiratory disease studies.⁵

The existence of family history of asthma is widely accepted by many authors as a risk factor for the onset of respiratory symptoms in children, as demonstrated in the study by Gray et al.⁶ Nevertheless, as stated by Gaspar et al., studies are needed in order to identify the influence of family history on the severity and clinical course of bronchial asthma in children, as well as factors associated with symptom severity and persistence, in order to define strategies aimed at minimizing risks and reducing the growing morbidity of this disease.⁷ Priority should be given to studies that more objectively associate prior family diagnosis, presence of symptoms,

Download English Version:

<https://daneshyari.com/en/article/4154156>

Download Persian Version:

<https://daneshyari.com/article/4154156>

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