



ORIGINAL ARTICLE

Perinatal factors associated with the development of cow's milk protein allergy[☆]



E.M. Toro Monjaraz*, J.A. Ramírez Mayans, R. Cervantes Bustamante, E. Gómez Morales, A. Molina Rosales, E. Montijo Barrios, F. Zárate Mondragón, J. Cadena León, M. Cazares Méndez, M. López-Ugalde

Departamento de Gastroenterología y Nutrición Pediátrica, Instituto Nacional de Pediatría, Mexico City, Mexico

Received 18 September 2014; accepted 12 January 2015

Available online 25 March 2015

KEYWORDS

Cow's milk protein allergy;
Prematurity;
Breastfeeding;
Cesarean section;
Antibiotics

Abstract The prevalence of cow's milk protein allergy (CMPA) has increased in recent years, and is associated with antimicrobial use during the perinatal period, prematurity, the type of childbirth, and the decrease in breastfeeding. The aim of this study was to analyze whether there is any association between these factors and the development of CMPA.

Material and methods: A retrospective, comparative, cross-sectional, observational study was conducted by reviewing the case records of 101 children diagnosed with CMPA and seen at the Department of Gastroenterology and Nutrition of the *Instituto Nacional de Pediatría* within the time frame of January 2012 and August 2013. The following variables were included: age, sex, weeks of gestation, history of maternal infection and antimicrobial use during the pregnancy, type of delivery, and feeding with human milk, and its duration. Likewise, the case records of 90 children were reviewed as a control group on not having CMPA or any other allergy. The chi-square test was used for proportions, and the Mann-Whitney U test was used for comparing means in the statistical analysis.

Results: The factors associated with CMPA were the use of antimicrobials during gestation and breastfeeding duration in months. Both factors were statistically significant ($P < .001$). No association was found between CMPA and gestational age or type of delivery.

[☆] Please cite this article as: Toro Monjaraz EM, Ramírez Mayans JA, Cervantes Bustamante R, Gómez Morales E, Molina Rosales A, Montijo Barrios E, et al. Factores perinatales asociados al desarrollo de alergia a las proteínas de la leche de vaca. *Revista de Gastroenterología de México*. 2015;80:27–31.

* Corresponding author. Insurgentes Sur 3700 C. Colonia Insurgentes-Cuiculco. CP 04530.

Tel.: +10840900 ext. 1288. Cellular: 0445533321176.

E-mail address: emtoromonjaraz@hotmail.com (E.M. Toro Monjaraz).

PALABRAS CLAVE

Alergia a las proteínas de la leche de vaca;
Prematuridad;
Lactancia materna;
Césarea;
Antibióticos

Conclusions: The statistically significant associated factors were breastfeeding duration and the use of antimicrobials during the gestational stage. These results underline the necessity for prospective studies.

© 2014 Asociación Mexicana de Gastroenterología. Published by Masson Doyma México S.A. All rights reserved.

Factores perinatales asociados al desarrollo de alergia a las proteínas de la leche de vaca

Resumen La alergia a las proteínas de la leche de vaca se ha incrementado en los últimos años, asociado al uso de antimicrobianos en el periodo perinatal, prematuridad, el tipo de nacimiento y la disminución de la lactancia materna. El objetivo de este estudio fue analizar si existe alguna asociación entre estos factores y el desarrollo de alergia a las proteínas de la leche de vaca (APLV).

Material y métodos: Estudio comparativo, retrospectivo, transversal, observacional. Se revisaron los expedientes de 101 niños con diagnóstico de APLV que asistieron al Departamento de Gastroenterología y Nutrición del INP de enero de 2012 a agosto de 2013. Se incluyeron las siguientes variables: edad, sexo, semanas de gestación, antecedente de infecciones y uso de antimicrobianos en la madre durante el embarazo, tipo de parto, alimentación con leche materna y duración de la misma. Así mismo se revisaron los expedientes de 90 niños como grupo control sin APLV ni otro tipo de alergias. Para el análisis estadístico se utilizó prueba de Chi cuadrado para proporciones o U-Mann-Whitney en el caso de comparación de medias.

Resultados: Se encontró que los factores asociados a APLV fueron el uso de antimicrobianos en la etapa gestacional y la duración en meses de la lactancia materna; en todos ellos existió una diferencia estadísticamente significativa ($p < 0.001$). No se encontró asociación de APLV con la edad gestacional y el tipo de nacimiento.

Conclusión: Los factores asociados estadísticamente significativos fueron la duración de la lactancia materna y el uso de antibióticos durante la etapa gestacional, lo que obliga a realizar estudios prospectivos.

© 2014 Asociación Mexicana de Gastroenterología. Publicado por Masson Doyma México S.A. Todos los derechos reservados.

Introduction

Food allergy is defined as an adverse immunologic reaction occurring from exposure to a specific food, and is different from another reaction to food, such as intolerance, drug reactions, and toxin-mediated reactions.^{1,2} A rise in food allergy prevalence has been observed in recent years.^{3,4} Cow's milk proteins are the main cause of food allergy in children under 2 years of age. Cow's milk protein allergy (CMPA) is defined as an immunologic reaction to the proteins of cow's milk, accompanied with signs and symptoms, the large majority of which are gastrointestinal, although it can also present with dermatologic and respiratory manifestations.⁵

There is a 2.2 to 2.8% prevalence of CMPA worldwide in children under 1 year of age. In a study on Dutch children, Schrander found a prevalence of 2.8%, whereas Host reported a prevalence of 2.2%.^{6,7} No epidemiologic studies have been conducted in Mexico and therefore CMPA prevalence is not known with certainty, although it has been estimated at 5 to 7%.⁵

There are different hypotheses for explaining the increase in allergy, and CMPA in particular, but they are subject to debate. In general, the explanatory factors that have been proposed are: the use of antimicrobials during the perinatal period, prematurity, cesarean section delivery, and a lack of feeding with human milk.⁸⁻¹⁰

The aim of the present study was to analyze this probable association with CMPA in the child population that was attended to at our institution.

Methods

A comparative, retrospective, cross-sectional, observational study was conducted. The case records were reviewed of 101 children diagnosed with CMPA (group 1) that were seen at the Department of Gastroenterology and Nutrition of the *Instituto Nacional de Pediatría* within the time frame of January 2012 and August 2013. The diagnosis of cow's milk protein allergy was made with the simple open blind challenge test, exactly as established in the international guidelines.^{11,12}

Download English Version:

<https://daneshyari.com/en/article/3319066>

Download Persian Version:

<https://daneshyari.com/article/3319066>

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