SHORT COMUNICATION

Cereal-induced anaphylaxis in an adult after eating a baby cereal formula

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ABSTRACT

Ingestion of infant cereal formula as a cause of anaphylaxis has been exclusively described in children. We report the case of a man who experienced an anaphylactic reaction after eating his son's cereal formula. We believe that cereals constitute a rising problem and a hidden allergen that can cause severe reactions. Although these reactions are not fully understood, they may possibly be a life-long event.

Key words: Adult. Cereal. Food allergy.

RESUMEN

La anafilaxis producida por papillas a base de cereales sólo se ha descrito en niños. Presentamos un caso de reacción anafiláctica en un adulto tras ingerir la papilla de su hijo. Creemos que es importante tener en cuenta los cereales como un problema creciente y un alergeno oculto que puede producir im-

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T. Asensio Sánchez C/ Cardenal Torquemada s/n 47010 Valladolid. Spain Tels.: 983420400-614/615 E-mail: terucass@yahoo.es portantes reacciones que aún no se comprenden totalmente, pero que posiblemente puedan darse a lo largo de toda la vida.

Palabras clave: Adulto. Cereal. Alergia alimentaria.

Type I cereal ingestion response is a special type of food sensitisation because the patient usually is not aware of this allergy¹. The reason may be that clinical symptoms do not appear immediately after ingestion of cereal products and, in some cases, may not appear if the patient does not perform exercise at a particular time².

Cereal baby food as a cause of anaphylactic reaction have been exclusively described in children³. We report a severe anaphylaxis in a 34 years old man, carpenter, previously diagnosed from occupational asthma due to the rye flour added to the wood boards⁴. He normally tolerated bread and other cereal-based products without any reaction but suffered from oral syndrome after drinking beer and eating mustard. After testing a spoonful of his baby cereal food prepared for his wife (nongluten rice and corn formula), he suffered from a sudden onset of respiratory and gastrointestinal symptoms, paleness and reduced level of consciousness that required emergency room treatment. Skin prick test (SPT) performed with 32 aeroallergens and 20 common food allergens showed no reaction except for wheat, barley and rye flours and peanut and mustard. Low levels of specific IgE were detected by means of the Pharmacia CAP system to the SPT-positive allergens (class 2). A double-blind-placebo-controlled-food-challenge (DBPCFC) performed with 0.1 g of cereal formula in lemon juice was positive (pharyngeal itching followed by cough and gastrointestinal discomfort). Figure 1 shows the result of the IgE-immunoblotting experiment carried out with the patient'serum. A broad and non-defined band with a molecular weight higher than 37 kDa is detected in the baby food, flours and mustard extract. In addition, a defined 23 kDa band is detected in the corn flour extract.

Food allergy is a widespread problem within pediatrics. Certain baby formulae appear to be hypoallergenic but they may lead to severe immunological responses. In our case the first contact with the allergen was the inhalation route. The patient's history of cereal allergy is currently not fully understood but may possibly be a life long event.

REFERENCES

- Aoki T, Kushimoto H. Type I wheat ingestion allergy. A model of masked allergy. N Eng Reg Allergy Proc 1987;8:34-6.
- Crespo FC, Rodriguez J. Food allergy in adulthood. Allergy 2003;58:98-113.

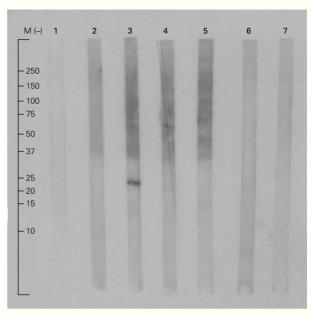


Figure 1.—IgE-immunoblotting experiment with patient's serum. 1: Negative control (buffer). 2: Baby food extract. 3: Corn flour extract. 4: Rice flour extract. 5: Mustard extract. 6 and 7: Negative control with baby food extract and two sera from baker's asthma patients.

- Klein SK, Kremers EM, Vreede WB. Six-month old girl with an anaphylactic reaction to rice flour, a rare food allergy. Ned Tijdschr Geneeskd 2001;28:1471-3.
- Armentia A, Garcia-Casado G, Vega JM, Sánchez-Monge R, Méndez J, Salcedo G. Occupational allergy to rye flour in carpenters. Allergy 1997;52:1151-2.