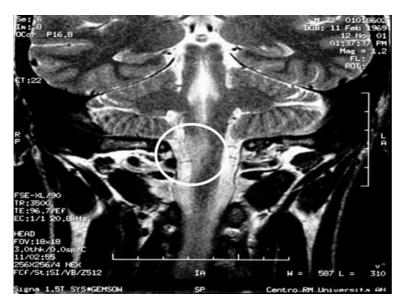
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*Figure 1.* Nuclear magentic resonance (NMR) image of central nervous system (CNS) showing the myelitis-like lesion.

leading role in respiratory symptoms. The total IgE serum level was elevated (1286 IU/ml) and the evaluation of serumspecific IgE confirmed the skin test results (Bioallergy Italy).

The patient refused to consent to a CSF analysis.

Our clinical and neuroimaging data seem to be consistent with a diagnosis of AM, although a sure diagnostic statement is not available. Atopic myelitis should be considered in patients with atopic dermatitis and respiratory allergy in conjunction with neurological symptoms. Further studies will be necessary to determine the diagnosis of this disease, its prevalence in western countries, and the mechanisms linking allergic and central nervous system diseases.

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#### References

- Osoegawa M, Ochi H, Minohara M, Murai H, Umehara F, Furuya H et al. Myelitis with atopic diathesis: a nationwide survey of 79 cases in Japan. J Neurol Sci 2003;209:5–11.
- Kira J, Yamasaki K, Kawano Y, Kobayashi T. Acute myelitis associated with hyper-IgEemia and atopic dermatitis. J Neurol Sci 1997;148:199–203.
- Kira J, Kawano Y, Yamasaki K, Tobimatsu S. Acute myelitis with hyper-IgEemia and mite antigen specific IgE: atopic myelitis. J Neurol Neurosurg Psychiatry 1998;64:676–679.
- Kira J, Kawano Y, Horiuchi I, Yamada T, Imayama S, Furue M et al. Clinical, immunological and MRI features of myelitis with atopic dermatitis (atopic myelitis). J Neurol Sci 1999;162: 56–61.
- Osoegawa M, Ochi H, Kikuchi H, Shirabe S, Nagashima T, Tsumoto T et al. Eosinophilic myelitis associated with atopic diathesis: a combined neuroimaging and histopathological study. Acta Neuropathol 2003;105:289– 295.
- Horiuchi I, Kavano Y, Yamasaki K, Minohara M, Furue M, Taniwaki T et al. Th1 dominance in HAM/TSP and the optico-spinal form of multiple sclerosis versus Th2 dominance in mite antigenspecific IgE myelitis. J Neurol Sci 2000;**172**:17–24.

- Kikuchi H, Osoegawa M, Ochi H, Murai H, Horiuchi I, Takahashi H et al. Spinal cord lesions of myelitis with hyper-IgEmia and mite antigen specific IgE (atopic myelitis) manifest eosinophilic inflammation. J Neurol Sci 2001;183:73–78.
- Wu X-M, Osoegawa M, Yamasaki K, Kawano Y, Ochi H, Horiuchi I et al. Flow cytometric differentiation of Asian and Western types of multiple sclerosis, HTLV-1-associated myelopathy/tropical spastic paraparesis (HAM/TSP) and hyper-IgEaemic myelitis by analyses of memory CD4 positive T cell subsets and NK cell subsets. J Neurol Sci 2000;177: 24–31.

# Transient vs persistent cow's milk allergy and development of other allergic diseases

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**Key words:** asthma; atopic dermatitis; children; milk allergy.

Cow's milk allergy (CMA) is one of the most frequent food allergies in the pediatric popula-

tion. At our outpatient clinic its incidence has been increasing over the years, cow's milk being the

#### Cow's milk allergy (CMA) in childhood is a marker of a high risk for subsequent respiratory allergy.

major food allergen implicated in children (46% of the cases) (1).

The CMA is usually a transient condition in which over 80% of the children reach clinical tolerance before 3 years of age; when it lasts longer than 36 months we define it as persistent. The CMA has been pointed out as a marker of a higher probability for developing other allergic diseases, especially when it persists (2, 3).

The aim of our study was to determine the prevalence of other allergic diseases in our CMA patients, to compare it between two groups of children with CMA of different duration and also with

	A + B ( <i>n</i> = 76, %)	A ( <i>n</i> = 45, %)	B ( <i>n</i> = 31, %)	ISAAC ( <i>n</i> = 2484, %)	A vs B (P-value)	A + B vs ISAAC (P-value)	A vs ISAAC (P-value)	B vs ISAAC (P-value)
Asthma	45	36	58	14	0.05	< 0.0001	< 0.0001	< 0.0001
Rhinitis	41	40	42	26	0.84	0.004	0.03	0.04
Atopic dermatitis	29	22	39	15	0.11	0.001	0.19	0.0003

data from the general pediatric population.

From September to November 2002, we included a group of 76 children followed up in our department with past or present history of immunoglobulin (Ig)E-mediated CMA, observed within that period. The diagnosis was based on a suggestive clinical history plus positive skin prick tests and/or serum-specific IgE to cow's milk proteins, and confirmed by oral food challenges. The clinical tolerance was assessed by serial challenges (every 6 months until 3 years of age; annually afterwards). These children were divided into two groups, according to the duration of CMA: A - transient: 24 months or less; B - persistent: more than 36 months.

The children were submitted to a clinical reevaluation, and a questionnaire (adapted from the International Study of Asthma and Allergies in Childhood (ISAAC) considering the presence of allergic symptoms in the previous 12 months, was applied to all. Prevalence from the general pediatric population were obtained from ISAAC study (data on file), regarding a randomized sample of 2484 children, 6–7 years of age, living in Lisbon.

Both groups had a mean age of 8 years (range: 5–11), the M/F ratios were 2.5/1 vs 1.4/1 and the mean duration of CMA was 10.8 (2–24) vs 80.1 (36–150) months in groups A and B, respectively. Muco-cutaneous symptoms (urticaria, angioedema) were the most common clinical manifestations in both groups (A - 89%, B - 94%).

Table 1 shows and compares the prevalence of other allergic diseases in both groups and in the general pediatric population (chi-square test, Yates corrected, was used to analyze the results).

Our results show that children with CMA, regardless of its duration, have a

higher risk of developing respiratory allergy compared with the general pediatric population; and those with persistent CMA have a higher prevalence of asthma than the ones with the transient condition, showing a trend for statistical significance. Atopic dermatitis was significantly more prevalent in the group with CMA than in the general pediatric population, namely in those children with a persistent condition.

These findings stress the importance of a regular follow up of the children with CMA and even raise the question whether primary preventive measures should be considered, given their high risk for subsequent respiratory allergy.

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#### References

- Morais-Almeida M, Prates S, Pargana E, Arêde C, Godinho, M, Tavarese et al. Alergia alimentar em crianças numa consulta de imunoalergologia. Rev Port Imunoalergol 1999;7:167–171.
- Hill DJ, Bannister DG, Hosking CS, Kemp AS. Cow milk allergy within the spectrum of atopic disorders. Clin Exp Allergy 1994;24:1137–1143.
- Host A, Halken S, Jacobsen HP, Christensen AE, Herskind AM, Plesner K. Clinical course of cow's milk protein allergy/intolerance and atopic diseases in childhood. Pediatr Allergy Immunol 2002;13(Suppl. 15):23–28.

#### Tagatose and milk allergy

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Key words: allergy; cows' milk; tagatose.

Tagatose is a new food ingredient being used as a reduced-calorie sweetener in foods and bever-

ages. Tagatose is a six-carbon ketose sugar found naturally in some dairy

## Tagatose does not contain milk residues.

products and in tropical date trees. As tagatose is incompletely absorbed, it provides only 1.5 cal/g as contrary to 4 cal/g for sucrose. Tagatose has approximately the same sweetness as sucrose. Recently, a manufacturing process for tagatose has been developed allowing the production of increased quantities of tagatose. Tagatose has been affirmed as Generally Recognized as Safe (GRAS) in the US and is approved for use in foods and beverages in the US, Korea, Australia and New Zealand.

Tagatose is a unique ketose sugar manufactured by the isomerization of galactose. The galactose involved in the manufacturing of tagatose is derived from lactose, the disaccharide found in the whey fraction of milk. Lactose is known to contain residual milk proteins including several of the major cows' milk allergens, principally  $\beta$ -lactoglobulin and  $\alpha$ -lactalbumin from whey, on occasion (1). Consequently, some questions were raised about the potential allergenicity of tagatose.

Although lactose often contains residual milk allergens, tagatose is much less likely to contain any milk allergens based upon knowledge of the process used to