

Cow's milk allergic patients should be informed of the sources of caseinate

Can Naci Kocabaş, Bülent Enis Şekerel

Allergy and Asthma Unit, Department of Pediatrics, Hacettepe University Faculty of Medicine, Ankara, Turkey

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Cow's milk allergy is one of the most common food allergies prevalent during infancy and it may cause anaphylactic reactions in more sensitive patients.

Cow's milk is found in a large variety of processed foods but its presence may be hidden as it is occasionally listed on the product label in a manner unrecognizable to the consumer. The parents of more sensitive patients need to be instructed in the detection of these potential sources of hidden cow's milk by judiciously reading food labels and in recognition of the sources, thus avoiding possible untoward reactions.

We report a patient with cow's milk allergy who had an anaphylactic reaction following the ingestion of a hot dog product that contained caseinate. The label of the ingested hot dog product listed only the code number of caseinate. Avoidance of such occurrences would be more likely if firstly food products were labeled more accurately and secondly if physicians were to instruct their patients more thoroughly about their allergies, including the relevant names of all allergens.

Key words: anaphylaxis, cow's milk allergy, caseinate, food allergy.

Cow's milk is one of the most important allergens in young children and may cause a broad spectrum of conditions including life-threatening anaphylaxis¹. Cow's milk is so widely distributed in processed foods that avoidance of cow's milk in the diet is difficult^{2,3}. For this reason, patients with cow's milk allergy are counseled to read product labels carefully².

We report a patient with cow's milk allergy displaying anaphylactic reaction following ingestion of a hot dog containing caseinate.

Case Report

A 20-month-old boy with a history of adverse reaction to cow's milk and hens' eggs from the age of six months was brought into the hospital's emergency unit with main complaints of periorbital edema, rash and rhinorrhea. Within 20 minutes of eating a small piece of hot dog, he had developed facial angioedema, rhinorrhea and generalized itching. On arrival at the unit the diagnosis of an anaphylactic

reaction was entertained and antihistamine and systemic corticosteroid (methylprednisolone) were applied. His blood pressure and chest on auscultation were normal and he was monitored in the intensive case unit for late anaphylactic reaction. He improved quickly and no late reaction was observed and he was discharged one day later. According to his history, he had two similar reactions before, one at six months of age which resulted in the diagnosis of cow's milk allergy and a second after accidental ingestion of a food containing milk. He also had four wheezing episodes following respiratory tract infection which responded to bronchodilator and systemic corticosteroid and was diagnosed as bronchial asthma. His serum was analyzed with CAP system (Pharmacia, Uppsala, Sweden) for total IgE (61 kUA/L) and for specific IgE to cow's milk (9.79 kUA/L). The skin prick test was strongly positive for milk, betalactoglobulin and casein and slightly positive for alpha lactalbumin. Parents were trained in the use

of self-injection epinephrine and antihistamine and instructed to avoid principles from cow's milk.

Discussion

When the diagnosis of food allergy has been established, the only proven therapy is elimination of the offending allergen. Repeated exposure to small quantities of cow's milk proteins may lead to recurrence of symptoms and delay in the resolution of cow's milk allergy^{1,3}. As several foods may contain cow's milk in a hidden form, parents should be instructed how to detect potential sources of hidden cow's milk by judiciously reading food labels to avoid possible untoward reactions². Our patient with clinical manifestations of anaphylactic reaction underwent a careful anamnesis that showed he had eaten a hot dog containing caseinate. His mother was known to display anaphylactic reaction to cow's milk, but her son's anaphylactic reaction to caseinate was unknown. She had been instructed not to ingest cow's milk but had not been told about caseinate. In addition, caseinate was not listed on the label of the ingested hot

dog product, and the manufacturer, who apart from being unaware of the new coding system for ingredients, had mistakenly listed E 465 instead of caseinate. The presence of cow's milk is widespread due also to its unlabeled inclusion as an ingredient, or to errors in cooking, processing and preparation, especially in restaurants². For this reason, individuals with milk allergies should avoid processed foods as much as they can and try to consume foods prepared at home; only food items with all the ingredients listed on the label should be consumed^{2,3}. In spite of these preventive measures, anaphylactic reactions do sometimes occur³. For this reason, children with a history of anaphylactic reactions and or their parents must always carry an epinephrine self-injector. In conclusion, physicians must be alert to possible unknown hidden cow's milk allergens including caseinate, and food manufacturers inform their consumers more carefully, ensuring they clearly indicate caseinate on the label.

REFERENCES

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