The Natural History of IgE-Mediated Cow’s Milk Allergy


**Purpos**e of the study. Cow’s milk allergy (CMA) is generally reported to resolve in 85% of children by the age of 3 to 5 years. This study evaluated the rate of resolution of CMA in a food-allergy referral population with emphasis on factors predicting resolution.

**Study population.** Final selection of charts for review and abstraction were obtained from clinical records of 4117 patients seen by 1 of the authors over 14 years; 1368 patients had food allergy, and 1073 patients had CMA. After excluding non-immunoglobulin E (IgE)-mediated disease and fewer than 2 visits, 807 patients’ charts were reviewed.

**Methods.** A retrospective chart review was conducted, and 3 definitions were applied regarding tolerance of cow’s milk. The strictest definition (1) was tolerating home introduction or a supervised food challenge, the second definition (2) included those with a milk-specific IgE level of <3 kU/L and no history of clinical reactions in 1 year, and the least stringent criteria (3) included a milk-specific IgE level of <15 kU/L and no history of clinical reactions in the preceding year.

**Results.** When tolerance was defined by using the most stringent criteria, only 5% outgrew their allergy by 4 years of age, 21% by 8 years of age, 37% by 12 years of age, and 55% by 16 years of age. With criteria 2, the rates of resolution were 19% at 4 years of age, 42% by 8 years of age, 64% by 12 years of age, and 79% by 16 years of age. For the least stringent criteria (3), 26% were tolerant by 4 years of age, 56% by 8 years of age, 77% by 12 years of age, and 88% by 16 years of age. The higher the milk-specific IgE level noted per patient, the less likely was prompt resolution (*P < .001*). Coexisting asthma (*P < .001*) and allergic rhinitis (*P < .001*) were also significant predictors of delayed tolerance.

**Conclusions.** The prognosis for CMA in this population was worse than previously reported. However, some patients developed tolerance during adolescence, indicating that follow-up and reevaluation of patients with CMA is important in their care. Cow’s milk–specific IgE levels are highly predictive of outcome.

**Reviewer comments.** It is depressing to see recent studies supporting a slower resolution of common food allergies (see also the following review on a study about egg allergy). However, the good news is that hope is not lost when an allergy persists into school age; these studies confirm that children may continue to “outgrow” allergies into adolescence and that repeated evaluations are helpful. It must be appreciated that this study represents a referral population that likely is enriched for children with a more persistent phenotype of milk allergy.
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Scott H. Sicherer
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