

Issue 50 In a nutshell

A new substitution study has suggested that cow's milk allergy may be more common than realised in children and may cause constipation.

On the other hand, another study showed that eliminating dairy food can impair growth in toddlers.

Clinicians need to be alert to the possibility of cow's milk allergy but not jump to conclusions either.

Cow's milk and allergy

Arbor Clinical Nutrition Updates 1998 (Oct);50:1-2 ISSN 1446-5450

ARCHIVED ISSUE

For a full list of topics covered in the Updates, or to subscribe yourself, please refer to our web site at www.nutritionupdates.org

Alternatively, you can email us at upD@arborcom.com and include details of your name, email address, which country you live in, institution you are associated with (if relevant) and professional background.

Subscription is free for health professionals and students.

NUTRITION RESEARCH REVIEW

Study 1: Cow's milk allergy and constipation

Cow's milk allergy is a common cause of chronic constipation in children, and the mechanism may be perianal fissure, according to a study published this week in the New England Journal of Medicine. The symptoms will resolve in most instances with simple substitution of soy milk for cow's milk.

Researchers from Italy performed a double blind crossover study in 65 children (11-72 months old) who had been unsuccessfully treated for chronic constipation using laxatives.

After a 15 day observation period, patients were placed on either soy or cow's milk for 2 weeks. The treatments were reversed after a one week washout.

Positive response was seen in 68% of the soy-treated children, compared with 0% of the cow's milk children. Every case of soy-treated response was confirmed as a cow's milk allergy using double-blind challenge with cow's milk.

In those two thirds of children who were responsive to soy substitution, there were significant differences compared with the one third who were not (see table)

Ref: NEJM 1998; 339: 1100-1104

Table: Clinical parameters in relation to responsiveness to soy substitution

	Soy responsive : Yes	No	Signif.
Coexistent allergic disease (rhinitis/dermatitis/bronchospasm)	25%	5%	p=0.05
Anal fissures & erythema/edema	90%	42%	p<0.001
Rectal mucosal inflammation	60%	24%	p=0.008
Hypersensitivity (specific IgE to cow's-milk)	70%	19%	p<0.001

Study 2: Elimination not without risk

Cow's milk elimination can have adverse effects on overall growth in toddlers, according to results from a recent Finnish study. One hundred children (average age 7 months) with atopic dermatitis and challenge-proven cow's milk allergy were followed both before and after a cow's milk elimination diet.

Although all patients achieved symptomatic control, these children had significantly less length and weight-for-length than control healthy children (p<0.0001 and p=0.03 respectively). There was a significant relationship between growth impairment and earlier onset of symptoms. The authors concluded that there is a delicate balance between the benefits and the risks of elimination diets.

Ref: J Pediatr, 1988; 132:1004-9

Study 3: Yoghurt not better than milk

Yoghurt is often said to be a more suitable food than whole milk in the treatment of acute diarrhoea situation, but Indian researchers failed to confirm this. They compared the clinical outcome of acute diarrhoea in 96 malnourished boys (aged 4 to 47 months) randomly selected to receive either full-strength milk or yoghurt formula, as part of a mixed diet.

Although stool-reducing substances were detected more frequently in the milk formula group, total stool weights were comparable over the first 3 days, as was median duration of diarrhea and treatment failure rates. Moreover, children consuming milk had higher median percent weight gain at the end of 72 hours of the study ($p = 0.04$) and at recovery ($p = 0.02$).

Ref: *J Pediatr*, 1988; 132:999-1003

Comments

Reactivity to cow's milk is one of the perennial controversies of clinical nutrition, particularly in primary care. On the one hand are those who maintain that true cow's milk allergy is quite rare and any other attribution of illness to this food a fiction, On the other are those who believe it to be so common as to be a prime suspect in many allergic like diseases. Most primary care physicians sit somewhat bewildered in the middle ground of the debate.

The first study from Italy is one of a number reported over the last 15 years that suggests that cow's milk reactions may be really quite often the cause of common symptoms, particularly in children. Similar results based on elimination studies have been claimed for children with headaches, asthma and eczema. Few of these studies until now have been quite as rigorous as the current one, with its cross-over double blind design and confirmation using challenge testing.

On the other hand, the second study shows that elimination of cow's milk is something to be done with caution, as it may have an impact on nutritional adequacy and growth. A similar impact on short term growth was seen in the third study.

Not all studies have been so positive towards the conclusion that cow's milk allergy is such a common problem. Putting all the evidence together, it would be reasonable for the primary care clinician to consider cow's milk elimination in any child who has chronic constipation which has not responded to conventional measures.

However, the practical difficulties involved (particularly for poorer families where soy substitution may be difficult) and the impacts on growth suggest that this measure should not be considered lightly, and not ahead of simpler treatments.

Disclaimer, copyright, terms of use and subscribing

© Copyright Arbor Communications PTL 1998. All rights (including moral rights) reserved. Your use of these Updates in any way or format constitutes your agreement to our disclaimer and terms of use found on our web site at: <http://www.nutritionupdates.org/sub/terms3.html>. (you can obtain a copy by emailing us at: upT@arborcom.com). This Update may be forwarded onto others provided it is done in a way consistent with those terms.

If you want to receive the Clinical Nutrition Updates on an ongoing basis, please send us a request email to upD@arborcom.com. This is a FREE service to health professionals and students. Include details of your name, email address, which country you live in, institution you are associated with (if relevant) and professional background. The Updates are available in English, Spanish, Portuguese, Italian, French, Turkish, Korean and Russian.