Lactose-Intolerant Kids Should Get Some Dairy

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

It is usually not necessary to eliminate dairy foods from the diets of lactose-intolerant children and adolescents, and doing so may compromise their long-term skeletal health.

Most of these patients still can consume enough dairy every day to meet their calcium and vitamin D needs, especially if they drink lactose-reduced milk and eat yogurt with live cultures and/or aged cheeses, like cheddar or Swiss, according to the American Academy of Pediatrics' new guidelines on lactose intolerance.

If dairy products are eliminated from the diet of these children, the AAP strongly recommends regular calcium supplements. However, the guidelines said, supplemental calcium is not as bioavailable as that contained in mammalian milk.

The report also noted that, although the gastrointestinal distress of true lactose intolerance is unpleasant, is not harmful. However, when such symptoms occur in newborns or children who are younger than 3 years old, they should be immediately investigated as they may signal a serious, even life-threatening, digestive disorder.

The document is the first AAP lactose guideline update since 1990 (Pediatrics 2006;118:1279-86).

A statement from the American Dairy Council hailed the AAP guidelines as a common sense approach to a problem that sometimes prevents children from getting milk's unique nutritional package of protein, vitamins, and minerals.

"Although calcium-fortified beverages and other foods can provide an alternative source of calcium, the report reinforces that they do not provide an equivalent nutrient package to dairy foods like milk, cheese, and yogurt," Ann Marie Krautheim, a registered dietitian and an official on the council, said in a statement.

Rice and soy milks are not good substitutes for dairy products, because they are lacking in nutrients that are needed for bone growth in children.

"We hope this report will further educate parents on how to continue to include dairy in the diets of children sensitive to lactose and also help improve their nutrient intake."

Symptoms of lactose intolerance usually emerge slowly over several years and are most common among Asians and Native Americans, followed by blacks and Hispanics. The incidence is very low in whites, whose northern European heritage seems to be protective, according the guidelines. Among white children, symptoms typically don't develop until after age 4 or 5 years; they may manifest earlier in other groups.

Newborns who develop intractable diarrhea after consuming any mammalian milk product, including human milk, may have congenital lactase deficiency, a life-threatening inability to digest lactose. A biopsy of the small intestine will show normal histology but low or absent lactase concentrations. Unless this disorder is recognized and treated immediately, fatal dehydration from diarrhea is possible. Treatment is simple—feed the child a commercial lactose-free formula, the guidelines said.

When lactose-intolerance symptoms appear, the most common reaction is to remove dairy foods from the diet completely. However, that may be a mistake, the guidelines noted.

"The avoidance of milk products to control symptoms may be problematic for optimal bone mineralization. Children who avoid milk have been documented to ingest less than the recommended amounts of calcium needed for normal bone calcium accretion and bone mineralization."

Most lactose-intolerant children can tolerate varying amounts of dairy, depending on their individual symptoms: One glass of milk may be fine, but two may provoke diarrhea.

Parents should be encouraged to feed children lactose-free or lactose-reduced milk, and to encourage them to enjoy cheese and yogurt with live bacterial cultures, according to the guidelines. Yogurt and cheese may be especially valuable for very sensitive children, since the firmer textures of these foods delay gastric emptying and intestinal transit time, which results in fewer symptoms.

The guidelines also pointed out that all mammalian milks contain lactose, so there is no advantage in switching from cow milk to goat milk.

In addition, they said, rice and soy milks are not good substitutes, because they are lacking in nutrients that are needed for bone growth. ■

Charcoal May Subdue Excessive Flatus

BY SHERRY BOSCHERT
San Francisco Bureau

LAKE TAHOE, CALIF. — Ingesting six capsules of activated charcoal twice a day is the best treatment option for patients with excessive flatus not caused by an underlying treatable condition, Dr. Nirmal S. Mann said at a meeting on gastroenterology and hepatology sponsored by the University of California, Davis.

People normally pass flatus a mean of 15 times per day. Those whose bowels release gas more often or in larger quantities than normal can become socially embarrassed by the sound and smell, start shunning social gatherings, or may even develop marital problems, said Dr. Mann of the university.

Dietary modifications may help, such as avoiding excessive ingestion of beans, cabbage, starch, or complex carbohydrates, which are more likely to cause gas. The over-the-counter product Beano, containing α-galactosidase derived from *Aspergillus niger*, claims to reduce flatus but does not help, he said.

Lactase-deficient patients should avoid ingesting lactose. One lactose-intolerant patient who passed flatus 134 times in 24 hours solved the problem by restricting lactose in the diet.

The small intestine has a limited capacity to absorb fructose, so patients with excessive gas should avoid high-fructose tropical fruits, such as dates and mangoes, in favor of such low-fructose fruits as cantaloupe.

Artificial sweeteners used in some chewing gum and soft drinks generate more gas, including sorbitol, mannitol, and xylitol. Advise diabetic patients, who are more likely to use these products, to look at product labels if they're complaining of flatus, he suggested.

Sucrose deficiency, a congenital disease, may be the cause of excessive flatus. Consider this diagnosis, especially in children, and treat it with sacrosidase, Dr. Mann added.

Another underlying cause of excessive flatus—small bowel bacterial overgrowth—occurs in about 35% of patients with inflammatory bowel disease. Hydrogen breath tests can detect this problem, which can be treated with antibiotics.

For patients who do not fit into any of the categories above, oral activated charcoal is the best short-term treatment option, Dr. Mann said. He and his associates gave activated charcoal to six patients with excessive flatus and six control patients and measured the number of times they passed flatus in 8 hours, the amount of gas with each release, and bloating scores. All parameters decreased in both groups with treatment.

"Five out of six patients came back thanking me profusely" for reducing flatus, he said. The sixth patient had only a marginal response, so activated charcoal doesn't work every time.

Airtight undergarments containing a charcoal-lined cushion also have been marketed. A recent study found that the cushion made no difference, but the airtight construction contained the smell, if not the sound, of flatus.

"These may not be comfortable [for] sleeping, but if you're trying to avoid a divorce, I think it is a small price to pay," Dr. Mann said.

Another purported treatment, simethicone, is an organopolysiloxane that produced contradictory results in trials and probably is ineffective.

"I think it just breaks up the bubbles and has no value at all" for reducing flatus, he said.

In the long term, ingesting probiotics may be the most promising strategy for the average patient with excessive flatus. Probiotics may replace bacteria in the gut with bacteria that produce less-odiferous gases.

In patients with lactose malabsorption, prolonged use of lactulose changes the growth of bacteria and reduces malodorous flatus.

Bismuth compounds have been used to control odor from flatus but lead to black-colored stool. "This causes confusion, so I don't recommend that," he said.

Studies in dogs suggest that zinc acetate might be helpful, but there are no data in humans.

Yucca schidigera also has been studied in dogs but may cause bleeding problems. ■

In Children With Cerebral Palsy, GERD Prevalence Is High, but Often Missed

BOSTON — Gastroesophageal reflux disease is common, but often goes undiagnosed in children with severe generalized cerebral palsy, Dr. Rob Rieken reported at the annual meeting of the American Academy for Cerebral Palsy and Developmental Medicine.

In a cross-sectional study of 29 children with intellectual and severe motor disability (IQ less than 55 and Gross Motor Function Classification System levels I-IV), the prevalence of Gastroesophageal reflux disease (GERD)—based on 24-hour pH monitoring—was 59%, Dr. Rieken reported in a poster.

The mean duration of reflux periods was 10% of the total recording time, compared with a normal percentage of less than 4%.

There was no significant difference in the percentage reflux times between upright and supine periods (perhaps because of the high use of anti-Trendelenburg's positioning of the bed in children with cerebral palsy), but compared with upright periods, the percentage reflux time postprandially was significantly greater. This is likely explained by a higher frequency of transient relaxation of the lower esophageal sphincter, decreased lower esophageal sphincter tone, and/or delayed gastric emptying in the study population, explained Dr. Rieken, of Erasmus University Medical Center, Rotterdam, the Netherlands.

In more than half of the children with GERD, the diagnosis following the recording was new, and only half of those with a prior GERD diagnosis were receiving treatment. But 40% of those who were shown in this study not to have GERD were being treated for the disease, he noted.

The findings suggest that the diagnosis of GERD is frequently missed in children with cerebral palsy, and they show that pH measurement is a feasible method for assessing this population, Dr. Rieken concluded.

—Sharon Worcester