Dairy products: try them—you’ll like them?1,2

Jay A Perman and Barbara S Dudley

Osteoporosis in postmenopausal women may be reduced in both incidence and severity by a calcium intake of 1500 mg/d (1). Dairy products represent the richest natural food source for calcium, but a major impediment to the intake of dairy products is the desire to avoid symptoms attributable to lactose intolerance. These symptoms include excessive flatus, bloating, abdominal pain, nausea, and feelings of fullness. At least 30% of the US population mal digests lactose (2).

In this issue of the Journal, Suarez et al (3) compared symptoms in women consuming diets containing 1300 mg Ca, but either unmodified in lactose content or with the lactose content extensively reduced through enzymatic hydrolysis. In each diet, the amount of lactose or reduced lactose ranged from 34 to 2 g. Women were divided equally between those who digested lactose and those who did not as determined by breath-hydrogen testing. Women with lactose mal digestion reported no significant differences in bloating, abdominal pain, diarrhea, or their perception of overall symptom severity whether ingesting the conventional dairy-rich diet or the lactose-hydrolyzed diet. Women with lactose mal digestation did, however, report increased flatus frequency and subjective impression of rectal gas during the period of high lactose intake. Not surprisingly, women who digested lactose reported no significant differences for any symptom during ingestion of conventional or lactose-hydrolyzed dairy products. Because on balance the women with lactose mal digestation tolerated the “high” lactose diet, the authors concluded that “the symptoms resulting from lactose mal digestation are not a major impediment to the ingestion of a dairy-rich diet supplying ~1500 mg Ca/d.”

Suarez et al appropriately emphasized the prevalent excessive concern regarding symptoms of lactose intolerance. Two-thirds of the women in the study with lactose mal digestation reported that their symptoms during milk ingestion were less than expected. Yet, professional and lay misunderstandings of the prevalence and management of lactose intolerance abound and cross the age spectrum. For example, widespread, unnecessary use of lactose-free infant formulas by pediatricians and parents alike results from the mistaken belief that lactase deficiency is common in healthy infants, when in fact it is rare. Perhaps the most appropriate use of methods such as the breath-hydrogen test, which objectively define persons with lactose mal digestation, is to restore a diet containing dairy products to persons who have mistakenly been either self-diagnosed or diagnosed by health care professionals as having lactose mal digestation. For the truly intolerant, the authors’ experimental design illustrates the multiple methods by which lactose-intolerant persons can adopt strategies to avoid symptoms. These include intake of lactose as solid dairy products, particularly hard cheeses, which contain small amounts of lactose per unit volume; intake as yogurt, which has been shown to be an autodigesting source of lactose; intake as lactose-hydrolyzed milk and dairy products; and spreading lactose intake out over the course of the day.

Nevertheless, the message of this current work, that persons with lactose mal digestation are victimized by “extensive publicity concerning the ill effects of lactose” and should be encouraged to consume dairy products as a means of avoiding osteoporosis, may be equally misplaced. The data of Suarez et al clearly indicate that women with lactose mal digestation reported more symptoms when consuming conventional dairy products during the dairy-rich periods than when consuming their baseline diets. Whether this was due to a “mind set” as suggested by the fact that the women also complained when they were consuming the lactose-reduced products seems almost irrelevant. Moreover, the fact that only half of the women with lactose mal digestation indicated a willingness to continue to drink milk seems hardly a ringing endorsement of women with lactose mal digestation recognizing their tolerance and being ready to seize the opportunity to consume dairy products. Almost half of the women with lactose mal digestation preferred the intake of calcium tablets to continued intake of a dairy-rich diet.

Individuals often have multiple reasons for avoiding dairy products. Dairy products are high in energy as well as calcium, and many persons perceive dairy products as being fattening. In addition, dairy products are commonly seen as a food to be avoided by those who are conscious or need to be conscious of serum lipid concentrations. In addition, some persons have concerns regarding environmental toxins in milk, allergy to cow milk protein, and the cost of dairy products. Finally, the health care profession must be respectful of cultural preferences that influence consumption of dairy products (4). These general considerations appear to be supported by the data of Suarez et al, which indicated that more than half of the women who digested lactose preferred calcium tablets to a dairy-rich diet.

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These considerations provide a striking contrast with current attempts to counteract the problem of osteoporosis by urging greater consumption of dairy products. Witness recent remarks by Donna E Shalala, Secretary of Health and Human Services

1 From the Department of Pediatrics, Virginia Commonwealth University’s Medical College of Virginia, Richmond.

2 Address reprint requests to JA Perman, Department of Pediatrics, Virginia Commonwealth University’s Medical College of Virginia, Richmond, VA 23298-0646, E-mail: Jperman@hscc.vcu.edu.
and model for a milk moustache advertisement, that “all of us over 40 should be drinking milk” (DE Shalala, remarks before the Women for Human Rights and Dignity Annual Forum and Luncheon, Buffalo, NY, April 7, 1998). In summary, we must, as Suarez et al urge, educate those at risk of osteoporosis, including those who fear milk because of symptoms of lactose maldigestion, that they may tolerate greater usage of dairy products in their diet than previously assumed. At the same time, we need to strike a balance. We must be careful not to force the intake of dairy products on those who would choose otherwise and could achieve dietary prevention of osteoporosis just as well through the use of supplemental calcium.

REFERENCES