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CALCIUM SUPPLEMENTS: TOO MUCH OF A GOOD THING?

Over-the-Counter Supplements Can Cause Hypertension and Kidney Failure

Washington, DC (June 1, 2010) — Negative health effects linked to taking too much supplemental calcium are on the rise, according to a commentary appearing in an upcoming issue of the *Journal of the American Society Nephrology* (JASN). The incidence of the so-called milk-alkali or calcium-alkali syndrome is growing in large part because of widespread use of over-the-counter calcium and vitamin D supplements.

The milk-alkali syndrome arose in the early 1900s when patients ingested abundant amounts of milk and antacids to control their ulcers. This practice increased individuals' risk of developing dangerously high levels of calcium in the blood, which could cause high blood pressure and even kidney failure. The incidence of the milk-alkali syndrome declined when newer ulcer medications became available, but it appears to be on the rise again thanks to increased use of over-the-counter calcium and vitamin D supplements used mainly as preventive and treatment measures for osteoporosis. In many cases, patients with the syndrome require hospitalization.

Stanley Goldfarb, MD and Ami Patel, MD (University of Pennsylvania School of Medicine) recommend changing the name of the milk-alkali syndrome to the calcium-alkali syndrome because the condition is now associated with a large intake of calcium, not milk. Postmenopausal women, pregnant women, transplant recipients, patients with bulimia, and individuals who are on dialysis have the highest risks of developing the calcium-alkali syndrome due to various physiological reasons.

According to the authors, the obvious preventive strategy against the calcium-alkali syndrome is to limit the intake of calcium to no more than 1.2 to 1.5 grams per day. "Calcium supplements taken in the recommended amounts are not only safe but are quite beneficial. Taken to excess is the problem," said Dr. Goldfarb. "Even at the recommended dose, careful monitoring of any medication is wise and yearly determinations of blood calcium levels for those patients taking calcium supplements or vitamin D is a wise approach," he added.

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The commentary, entitled “Got Calcium? Welcome to the Calcium-Alkali Syndrome,” (doi 10.1681/ASN.2010030255) is available online at <http://jasn.asnjournals.org>. A detailed article on this commentary will also be included within the June issue of ASN *Kidney News*.

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