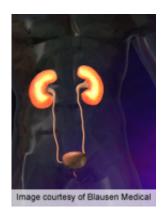


After bariatric op, controlled diet can aid CaOx supersaturation

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After bariatric surgery, following a diet that is normal in calcium, low in oxalate, and moderate in protein, can improve urinary calcium oxalate supersaturation, but not urinary oxalate excretion, in patients with a history of kidney stones, according to a study published in the August issue of *Urology*.

(HealthDay) -- After bariatric surgery, following a diet that is normal in calcium, low in oxalate, and moderate in protein, can improve urinary calcium oxalate (CaOx) supersaturation, but not urinary oxalate excretion, in patients with a history of kidney stones, according to a study published in the August issue of *Urology*.

Using data from nine patients with a history of CaOx kidney stones and mild hyperoxaluria who underwent bariatric surgery, Ran Pang, from the Mayo Clinic in Rochester, Minn., and colleagues investigated the effect of a controlled metabolic diet on reducing urinary CaOx supersaturation. Baseline 24-hour urine samples were collected while participants consumed a free choice diet. Before two final 24-hour urine collections, participants were then instructed to consume a controlled diet low in oxalate (70 to 80 mg/day), normal in calcium (1,000 mg/day), and moderate in protein.

The researchers found that urinary CaOx

supersaturation decreased significantly, from 1.97 \pm 0.49 delta Gibbs (DG) with the free choice diet to 1.13 \pm 0.75 DG with the controlled diet. This decrease occurred without a significant alteration in urinary oxalate excretion (0.69 \pm 0.29 mmol/day with the free choice diet versus 0.66 \pm 0.38 mmol/day with the controlled diet). The change in CaOx supersaturation was partially due to nonsignificant increases in urinary volume, citrate, and pH.

"The results of the present study suggest that a diet, normal in calcium and moderate in protein, can improve urinary CaOx supersaturation in patients after bariatric surgery," the authors write. "However, such a balanced low-oxalate diet did not normalize urinary oxalate excretion by itself."

More information: Abstract
Full Text (subscription or payment may be required)

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