

HYPEROXALURIA AFTER BARIATRIC SURGERY IN A POTENTIAL KIDNEY DONOR MAY ACTUALLY PRECLUDE KIDNEY DONATION.

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Certain forms of bariatric surgery for weight loss in a potential kidney donor can lead to hyperoxaluria, and confer high risk for nephrolithiasis. We report an interesting case of a woman who could not donate a kidney due to hyperoxaluria after bariatric surgery. Ironically, the bariatric surgery was done to help qualify her as a kidney donor.

A 29 year old woman presented for evaluation as a living kidney donor to her 5 year old daughter. She was obese and had undergone Roux-en-Y gastric bypass (RYGB) surgery 18 months earlier to qualify for kidney donation, as advised by her physician. Physical exam was unremarkable, Renal and hepatic function tests were normal. Blood glucose and HbA1c were also normal 24 hr urine studies revealed an oxalic acid level of 144.3mg/24hrs (3.6-38), and oxalic acid (mg/gm creatinine) was 122 (1.6-37). Patient was deemed unsuitable for donation due to high risk of developing stones, and was understandably disappointed.

Hyperoxaluria is a recognized complication of gastric bypass surgery. The increase in urinary oxalate is believed to be primarily due to increased enteric absorption of oxalate leading to increased excretion in the urine. Enteric hyperoxaluria seems to be related to fat malabsorption in patients after RYGB. Studies have shown that the mean urine oxalate concentrations were significantly increased 12 months post surgery. There is some data to suggest that RYGB alters intestinal flora which normally absorb oxalate. Hyperoxaluria itself is also nephrotoxic when the urine oxalate excretion is more than 100 mg /day (as in our patient). In women even lower levels of urinary oxalate have been shown to be toxic.

Awareness of hyperoxaluria as a potential consequence of bariatric surgery for obese patients is very important, and must be considered in discussing options for weight loss. Also, all patients contemplating RYGB should be checked for a baseline estimation of 24 hour oxaluria.