

Clinical Update

Weight-Loss Surgery Caution: Take Your Vitamins

Post-op thiamine deficiency can trigger rare but serious brain condition, experts warn

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Obese patients who undergo weight-loss surgeries such as gastric bypass can develop a rare but serious brain condition linked to vitamin deficiency, a new study warns.

Taking the recommended dose of supplements after surgery can prevent the brain illness, called Wernicke encephalopathy, which is caused by a deficiency of thiamine, a B vitamin.

The syndrome is "a problem everyone needs to be aware of," said Dr. Neil Hutcher, immediate past president of the American Society for Bariatric Surgery and director of the bariatric surgical service at Bon Secours St. Mary's Hospital in Richmond, Va.

Hutcher was not involved in the study, which is published in the March 13 issue of Neurology.

Wernicke encephalopathy can include vomiting, confusion, lack of coordination and visual changes such as nystagmus, an involuntary eye movement that can limit vision.

Doctors who perform weight-loss surgeries have known for years about this post-op complication, said study author Dr. Sonal Singh, an instructor in internal medicine at Wake Forest University School of Medicine, in Winston-Salem, N.C.

Singh is an internist and does not perform the gastric bypass surgeries. But he got interested in studying Wernicke encephalopathy after he treated a case a few years ago and then began noticing other patients with the problem.

"Absorption of vitamins is decreased after most gastric bypass surgery, so supplements are prescribed to make sure they get enough," Singh said. Still, some patients may fail to take the supplements as prescribed, boosting risks for low thiamine and Wernicke encephalopathy.

Taking a closer look at the issue, Singh and co-researcher Dr. Abhay Kumar of the University of Iowa combed the medical literature and uncovered 32 cases of Wernicke encephalopathy after obesity surgery.

The 32 patients had various types of obesity surgery, but the most common type was Roux-en-Y gastric bypass, in which some of the stomach and small intestine is bypassed.

Singh found that most instances of Wernicke encephalopathy occurred from 4 to 12 weeks after the surgery, and that one case came on 18 months later. Most of the patients, 27, were women.

When the researchers evaluated the cases, they found some patterns. The complication "usually occurs in younger women, under age 55," Singh said. "It usually occurs between one to three months after surgery."

"Vomiting is a risk factor," he said. "If you [frequently] vomit, you are more likely to get it."

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Of the 32 patients, 13 made full recoveries after treatment with vitamin B1, but others continued to have problems. One patient died while hospitalized from septic shock, Singh wrote.

"Some got the problem despite taking the supplement," he said. But, in many of the cases, the patients were not taking the supplements as prescribed.

One thing is clear: Wernicke encephalopathy affects only a very small proportion of the 170,000 people who undergo obesity surgery in the United States each year, Singh said.

Still, because the condition can be permanent and is preventable and treatable, it's important for physicians and patients to be aware of it, Singh said.

Hutcher agreed that the risk to any one patient is small. Wernicke encephalopathy is "not at epidemic proportions," he said, noting that 32 patients with the syndrome were identified "out of hundreds of thousands of bariatric surgeries." Hutcher estimated that, overall, there must be "close to a half million bariatric surgery patients in the U.S."

For patients who have undergone the surgery or plan to, Singh has this advice: "After the surgery, make sure you take your vitamin supplements, including the thiamine, and if you have vomiting or other symptoms [such as confusion, lack of coordination, visual changes], seek help immediately."

While potentially serious when it does occur, Wernicke encephalopathy is "totally preventable and either completely or partially reversible," Hutcher said.

Reputable physicians who do bariatric surgery will emphasize that supplements are crucial after surgery, he added.

