Bariatric Surgery Can Make People More Sensitive To Alcohol, Stanford Surgeon Finds

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"Stanford University Medical Center (2007, June 15). Bariatric Surgery Can Make People More Sensitive To Alcohol, Surgeon Finds."

An Oprah Winfrey-inspired study done by researchers at the Stanford University School of Medicine has found that patients who undergo gastric bypass surgery to lose weight will get drunk faster and take longer to get sober.

"It may sound strange, but Oprah really did inspire this study," said John Morton, MD, MPH, assistant professor of surgery and senior author of the study, which was presented at the annual meeting of the American Society for Bariatric Surgery. Referring to an episode of The Oprah Winfrey Show, Morton said, "After the Oprah show 'Suddenly Skinny' aired in October 2006, I got question after question from patients asking, 'What happens when I drink alcohol'."

Morton has performed more than 1,000 gastric bypass surgeries and routinely warns patients to be cautious when drinking alcohol after the surgery. But following the Oprah episode, which explored possible dangerous effects of alcohol on post-surgery gastric bypass patients, the overwhelming concern from his patients motivated Morton to research the scientific data on the topic. When he couldn't find much data, he decided to conduct a study with Stanford medical student Judith Hagedorn, who is the first author of the study. The study will be published in the official journal of the American Society for Bariatric Surgery, SOARD (Surgery for Obesity and Related Diseases).

"I've heard the anecdotes of a patient who will drink one glass of wine and get a DUI, but I wanted to know if there is really a difference before and after surgery," Morton said. "It's an important question for patients."

The study shows scientific evidence that supports cause for concern, Morton said. To measure the effects of alcohol, researchers gave 19 post-operative gastric bypass patients and 17 control subjects 5 ounces each of red wine. They were told to drink their wine within 15 minutes. Each subject then had their breath-alcohol level measured every five minutes until levels reached zero.

The gastric bypass patients reached a breath-alcohol peak of 0.08 percent vs. the control group's peak breath-alcohol level of 0.05 percent. The bypass patients also took significantly longer to return to zero, averaging 108 minutes vs. 72 minutes for the control subjects.

"The bypass patients have a fundamentally altered alcohol metabolism," Morton said. "They reach a higher peak more quickly and take a longer time to return to zero. Also, the patients aren't really aware of this. The Oprah show did us a favor by pointing it out."

About 150,000 Americans a year will undergo gastric bypass surgery, which can be a lifesaving procedure for morbidly obese people who are 100 pounds or more overweight. The surgery reduces the stomach to the size of a walnut so that patients can't eat as much and feel full after about an ounce of food.

The episode of the Oprah show discussed how patients feel faster alcohol absorption after gastric bypass because of their smaller stomachs. This physiological change could also contribute to a psychological problem referred to as "addiction transfer." In the case of gastric bypass patients, the addiction of binge eating, an issue for many morbidly obese patients can be "transferred" into an alcohol addiction.

Gastric bypass alters a number of physiological functions in the body that may explain this change, in particular a decrease in the enzyme alcohol dehydrogenase, which is most responsible for alcohol metabolism and is also most present in the liver and the stomach.

Another cause for concern, Morton pointed out, is that not only do patients get more relaxed socially from drinking alcohol, but this relaxation also happens inside the body. The lower esophageal sphincter tone decreases and gastric emptying increases when alcohol is consumed, potentially allowing patients to eat more food.

"Patients have to be careful with alcohol," Morton said. "They'll become tipsy a lot easier. Please don't ever drive after drinking. Also, they need to know the potential for weight gain from alcohol."

In addition to the alcohol study, Morton presented the results of a second gastric bypass study that found an improvement in cardiac risk factors in adolescents after gastric bypass surgery. The second presentation was made at the same meeting in San Diego.

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