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IN THE NEWS

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Probiotics May Help Gastric Bypass Patients

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San Diego—The administration of probiotics after gastric bypass surgery increases weight loss significantly, according to a randomized blinded study. The original hypothesis of the study was that probiotics would be an effective way of preventing bacterial overgrowth, a common problem after gastric bypass. The increased weight loss using the probiotics was a surprise.

"The weight loss was particularly impressive because the probiotic group had an older average age and a higher prevalence of diabetes, which predict less weight loss," reported Gavitt A. Woodward, a medical student in the Department of Surgery, Stanford University, Stanford, Calif.

Fulfilling the study hypothesis, the data also associated probiotics with a reduced risk for bacterial overgrowth based on the surrogate marker of hydrogen breath test results. There was a trend toward improved quality of life that did not reach statistical significance.

In the study, 41 patients undergoing a Roux-en-Y gastric bypass were randomized to a control group or to receive a probiotic after surgery. A single surgeon performed all of the procedures using the same approach. The surgeon and other health care staff were blinded to treatment assignment. The probiotic was a commercially available *Lactobacillus* available over the counter. Predefined end points included bacterial overgrowth as detected with hydrogen breath tests, quality of life as measured with gastrointestinal-specific instruments, vitamin B_{12} levels and weight.

Despite the randomization, significant differences were seen at baseline between the 22 controls and the 19 patients assigned to probiotics. By mean age, the probiotic group was significantly older (48.6 vs. 41.2 years; P=0.026). They also had almost three times the rate of diabetes mellitus (52.6% vs. 18.2%; P=0.026). Both differences would be expected to confer a disadvantage on the probiotic group for all of the outcomes of the study, particularly weight loss. Moreover, bacterial overgrowth was more common in the probiotic group before surgery.

During the six months of follow-up, patients in the probiotic group had consistently lower rates of bacterial overgrowth as measured with the hydrogen breath test. The improvements in quality of life were very large in both treatment groups, perhaps explaining why the relative advantage for the probiotic group failed to reach statistical significance. The vitamin B_{12} levels were also greater in the probiotic group, although the difference was not significant at all time points measured. The advantage for weight loss was observed at six weeks, at three months and at six months.

Although the study was relatively small, John Morton, MD, the study's senior author and director of bariatric surgery at Stanford University's Center for Weight Loss Surgery, reported that probiotics have since been adopted as a standard postoperative adjunctive therapy at his institution. Dr. Morton said that probiotics are safe and inexpensive, making their potential benefits substantial and the potential downsides minimal. He noted, however, that more studies are needed both to confirm the advantages observed in the single-center evaluation, and, if validated, to determine the mechanism by which they may contribute to weight loss.

Asked for a comment about this study, Hein G. Gooszen, MD, PhD, professor of surgery, University of Utrecht, The Netherlands, characterized the findings as “confusing.” Author of several studies on the use of probiotics, Dr. Gooszen questioned why the authors would change their practice when the results were not entirely consistent with the study hypothesis.

“Given the fact that the population tested was small and the randomization was apparently not successfully conducted, no conclusions at all seem justified,” Dr. Gooszen said. “The least that can be said is that the regime has done no harm and probably adds to weight loss. But before adopting this as a strategy for all patients in this category, another more convincing study seems needed.”