The role of bariatric endoscopy in the obesity pandemic

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Obesity is a wordwide pandemic accounting for approximately 2.8 million preventable deaths annually. It is a chronic disease associated with an increased risk of cardiovascular disease, insulin resistance and up to a 50% increased risk of mortality. Achieving sustainable weight-loss, even as little as 5% of Total Body Weight (TBW), can have clinically significant outcomes. Bariatric endoscopy is a rapidly evolving field that consists of non-surgical devices effective at achieving 10-20% TBW loss up to one year or longer depending on the procedure. While less effective than bariatric surgery, randomized control data and cohort studies support an improved safety profile of bariatric endoscopy over surgery. Bariatric endoscopy devices can be broadly categorized into intragastric balloons, a gastric aspiration system and endoscopic gastroplasty procedures. Each device has multiple mechanisms of action, including reduction of gastric volume, delayed gastric emptying and an altered satiety hormone profile. Most importantly, all these devices promote behavioral modifications in patients, which is critical for the successful management of any chronic disease. For example, approximately 20% of weight-loss with the gastric aspiration system is attributed to behavior modification secondary to meal planning and careful chewing. In terms of efficacy and safety profile, bariatric endoscopy is therefore the bridge between lifestyle interventions and surgery. Successful implementation of bariatric endoscopy in the framework of obesity treatment involves careful selection of patients that would benefit from the short-term gains of the device and are motivated enough to maximize the long-term gains of learned behavior, all without the need of surgery.

Biography

Ali Youssef Fakhreddine is a practicing Physician in the Division of Gastroenterology and Hepatology at Scripps Clinic, California. He has completed his Bachelor of Science in Biology with Honors from the University of Texas in Austin and Master's at UT Southwestern. He has completed his Internship and Residency at Harbor-UCLA. He was also a Chief Resident at Harbor-UCLA and Clinical Instructor at UCLA David Geffen School of Medicine. He is currently involved in four IRB-approved research projects and is the first author of a recently published review on cytomegalovirus in gastroenterology and hepatology.