Baro-Balloon

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Technology description

Invention:
A new medical device designed to replace permanent and invasive methods of weight loss. The device itself is a series of balloons used to gradually decrease the space in the stomach to promote weight loss. Unlike current gastric balloon based interventions that are free-floating and meant to only be utilized in the short term, this technology can be attached to the abdominal wall and can be utilized for long term, sustained weight loss. The technology works to decrease the space in the stomach by increasing the volume in the balloons. This volume adjustment can be done by the physician but also can be controlled by the patient themselves. While surgery is required to place the balloon, the procedure can potentially be performed endoscopically or by an interventional radiologist allowing for lighter anesthesia. The device is not permanent and can be removed.
Background:
There are many different approaches used to address obesity depending on the individual patient and severity. Morbidly obese patients are potential candidates for various surgical options which are beneficial. However, these procedures are invasive and permanently alter the patient’ s anatomy. Gastric balloon placements are considered an alternative to these invasive surgeries for lower BMI patients but most gastric balloon devices run the risk of deflation which can cause an obstruction because the balloons are free floating within the stomach.

Application area

Treatment of morbid or extreme obesity especially for patients with a BMI >40

Advantages

Minimally invasive procedure for placement
Adjustable to meet patient’ s needs
Reduced risk over current surgical procedures and balloon devices
Can be used for both long term and shorter term weight loss
Removable

Institution

University of Arizona

Inventors

Seda Bourikian
Surgical Resident
Surgery