

BARHAM ABU DAYYEH: My name is Dr. Barham Abu Dayyeh. I'm one of the gastroenterologist and advanced endoscopists here at the Mayo Clinic. I'm excited to talk to you today about a new area we're offering at the Mayo Clinic, which is endoscopic treatment for obesity and revision of gastric bypass surgery.

Obesity is a big public health problem for us, both in the US and worldwide. It's estimated that 1 in every 3 Americans is obese, with a BMI above 30. BMI is body mass index.

Unfortunately, lifestyle modification have failed to address the magnitude of the obesity problem. Also, medication that targets obesity, either have marginal benefit or unacceptable side effects to be applied for the big portion of our population with this disorder.

Bariatric surgery, namely, Roux-en-Y gastric bypass surgery and sleeve gastrectomy, shows the most promise in achieving significant and sustained weight loss and diabetes resolution. However, with any surgery there's the risks of complication. There's the costs associated with the surgery, and oftentimes these surgical procedures are not reversible.

Our understanding how gastric bypass surgery and other bariatric procedure works have really evolved over time. Now we know that altering different segments of the gastrointestinal tract results in changing the neural, hormonal signals between these segments and the brain, liver, pancreas, and other organs, with the end results being improved satiety, increased metabolism, and often time, improvement, if not resolution, of diabetes.

Capitalizing on this information, I'm excited to say that in GI, or in the field of endoscopy, we now possess the tools to replicate some of these benefits and some of these alterations that bariatric surgery produce, with the added benefit of this not being surgery. It's all done endoscopically through an endoscopy without surgical scars or incisions.

On top of this, these procedures are minimally invasive. And the patient usually is able to resume their regular activity shortly after the procedure. And oftentimes, these endoscopic procedures are reversible.

Three of the procedures that we are offering at the Mayo Clinic currently for the primary treatment of obesity are - one is reducing the size of the stomach, in a similar fashion as a sleeve gastrectomy, but endoscopically using an endoscopic suturing device, what we call sleeve gastroplasty.

Another procedure is we place an endoscopic cleaner into the small intestines that prevent food from mixing with gastrointestinal and digestive secretions until later in the GI track.

And finally, we also offer, for the primary treatment of obesity, an aspiration procedure, where we place a tube into the stomach and allow the patient to aspirate part of their ingested meal and get rid of these excess calories as a long-term management of their weight.

And these three procedures are currently available at the Mayo Clinic on a research basis, as a part of multicenter research studies involving other centers in the United States.

And on top of these procedures at the Mayo Clinic we also offer revision for Roux-en-Y gastric bypass surgery to treat weight regain that results from either an increase in the size of the gastric pouch, or an increase of the diameter of the outlet that connects the pouch and the small intestines. We are able to reduce the size of either the pouch or the outlet endoscopically, using an endoscopic suturing system, or using a chemical that we inject at these structures to reduce their size.

So these are some of the new avenues that's available to our patients at the Mayo Clinic. If you would like any further information, don't hesitate to contact us about either the primary treatments for obesity or procedures to treat weight regain after Roux-en-Y gastric bypass surgery.