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### Scientific Formal (Paper) Presentations

**CODE: SSA23-01**

**SESSION: SSA23**

**A Catheter to Curb your Appetite? A Novel Observation of Weight Loss Following Left Gastric Artery Embolization in Humans**

#### Date/Times

- **DATE: Sunday**
- **TIME: 10:45-10:55 AM**
- **LOCATION: E350**

#### PARTICIPANTS

- Rahmi Oklu MD, PhD - Nothing to disclose.
- Andrew J Gunn MD - Nothing to disclose.
- Elizabeth J Hamilton undefined - Nothing to disclose.

#### SUBSPECIALTY CONTENT

- Vascular

#### **PURPOSE**

Suppressing serum levels of ghrelin, a neuropeptide with powerful appetite-stimulating effects produced in the gastric fundus, is an intriguing potential means of controlling body weight. Since left gastric artery, which preferentially supplies the gastric fundus, is sometimes embolized in interventional radiology procedures, we assessed post-procedural weight loss in patients after left gastric artery embolization.

#### **METHOD AND MATERIALS**

Retrospective analysis of electronic medical records of patients who underwent left gastric artery embolization for upper gastrointestinal (GI) bleeding were compared to age-matched controls of similar patients that had undergone embolization of an artery other than left gastric artery for upper GI bleeding. Patients were included in the analysis if they had a recorded weight within two weeks prior to the embolization and within three months after the procedure. Differences in post-procedural weight loss between the groups were evaluated by a student's t test.

#### **RESULTS**

Fifteen patients (mean age: 66.1 years) were included in the experimental group analysis while eighteen patients (mean age: 63.5 years) were included in the control group analysis. The mean pre- and post-procedural weights in the experimental group were 189.1 lbs and 174.5 lbs, respectively, representing a 7.9% decrease in body weight. The mean pre- and post-procedural weights in the control group were 164.7 lbs and 162.8 lbs, respectively, representing a 1.2% decrease in body weight. The post-procedural weight loss of the experimental group was significantly greater than that observed in the control group ( $P=0.001$ ).

#### **CONCLUSION**

Patients lose significantly more weight after left gastric artery embolization than following embolization of other arteries for upper GI bleeding. The current data suggests that body weight can be potentially modulated via left gastric artery embolization in humans.

#### **CLINICAL RELEVANCE/APPLICATION**

Left gastric artery embolization results in weight loss in humans, which is a novel observation. These findings may lead to a role for the interventional radiologist in the treatment of obesity.