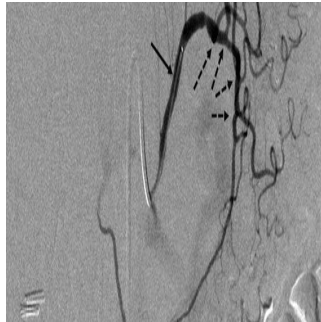

RSNA 2013: Weight Loss Aided by Embolisation Procedure



Results of a study offering a potential new lead for obesity research will be presented at next week's annual meeting of the Radiological Society of North America (RSNA). The findings show that individuals who underwent embolisation of the left gastric artery for gastrointestinal bleeding experienced a 7.9 percent decrease in body weight in the three months following the procedure. The retrospective study was conducted at Massachusetts General Hospital in Boston and co-authored by Andrew J. Gunn, M.D. (lead author), and Elizabeth J. Hamilton, B.S.

Applied to treat a variety of medical conditions, transarterial embolisation is a common intervention. It is an image-guided procedure, in which an embolic, or obstructive, agent is inserted through a catheter and placed inside an artery to prevent blood flow, whether in an artery or to a specific area of the body. Beads, coils and gel foam are types of embolic agents in use.

A team of researchers analysed the records of patients who had undergone transarterial embolisation for upper gastrointestinal (GI) bleeding. The study group included 14 patients who underwent embolisation of the left gastric artery, which supplies blood to the part of the stomach where the hormone ghrelin is predominantly produced.

Senior researcher Rahmi Oklu, M.D., Ph.D., assistant professor of radiology at Harvard Medical School, explained that ghrelin was the only hormone known to stimulate the appetite, making it an intriguing potential target for combating obesity. Previous studies conducted on animals had shown that when that left gastric artery was blocked, blood levels of ghrelin decreased and weight loss occurred.

The study also reviewed the records of 18 age-matched control patients who were treated for upper GI bleeding with transarterial embolisation of a different upper gastrointestinal artery. The study group consisted of eight men and six women with a median age of 66.1 years; and the control group included eight men and ten women with a median age of 63.5 years.

It was found that patients who underwent left gastric artery embolisation registered a loss of an average of 7.9 percent of their body weight within three months of the procedure. In contrast, weight loss within the control group was 1.2 percent within that time frame.

Dr. Oklu suggested that embolising the left gastric artery may potentially be a bariatric treatment for weight loss and an alternative to other invasive procedures, underlining this data point as a milestone in the development of a new clinical tool for the treatment of obesity.

Pointing out that left gastric artery embolisation performed by an interventional radiologist was a low risk procedure compared to gastric bypass and laparoscopic approaches which were more invasive weight loss interventions, Dr. Oklu added that the effect of left gastric artery embolisation would require further study in larger populations and eventually in prospective trials.

Overweight is reported by the Centers for Disease Control and Prevention at 69.2 percent for US adults over the age of 20, and obesity at 35.9 percent of adults over age 20.

The image shows left gastric artery angiography (black arrow) showing fundus of stomach (dashed arrows).

Source: [RSNA](#)

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