Device treats gastroesophageal reflux by stapling stomach to esophagus through mouth
29 September 2015, by Michelle Brubaker

Approximately 20 million Americans will experience some type of gastroesophageal reflux disease, or GERD, in their lives. In some cases, patients suffer resulting heart burn or acid regurgitation so severe that they require surgery to repair damage to their esophagus. A clinical trial at UC San Diego Health is using a new, FDA-approved device that reconstructs the esophagus through the mouth and requires no incisions.

The international clinical trial will include 200 participants, 20 from UC San Diego Health, who are at least 18-years-old. The research trial will serve to collect more data on the use of the new device. There is no expense to the enrolled patients for the procedure and participation is expected to last approximately three years post-surgery.

Using an endoscopic approach, the Medigus MUSE System staples the upper part of the stomach to the lower esophagus about three centimeters above the area where the two connect. The procedure creates a barrier of sorts to prevent contents from the stomach from flowing back up the muscular feeding tube.

"Traditional treatments for chronic GERD include over-the-counter medications for symptom management, but this new device provides a long-term solution by restoring a patient's esophageal anatomy through a minimally invasive approach," said Santiago Horgan, MD, principal investigator of the clinical trial and chief of minimally invasive surgery at UC San Diego Health. "Patients will experience a faster recovery time with a shorter hospital stay."

Horgan said that due to an increasing obesity rate and diet and lifestyle changes, GERD is on the rise. Extra weight places pressure on the stomach, which can prevent the lower esophageal sphincter (LES) from opening and closing properly, failing to sufficiently contain stomach contents.

Patients describe the condition as painful with a constant burning sensation in the throat and chest cavity. GERD is often associated with the inability to sleep, dietary constraints and could lead to a precancerous condition called Barrett's esophagus.

"GERD can significantly impact a patient's quality of life, so it's critical that we continue to study new ways to permanently treat the condition using technological advancements in the field," said Horgan, an international expert in treating esophageal disease.

Provided by University of California - San Diego