

GERD

Electrical stimulation of the lower esophageal sphincter to treat GERD

Electrical stimulation of the lower esophageal sphincter (LES) has the potential to be an effective new treatment option for patients with GERD, a recent study demonstrates.

One of the main aims of treatment for GERD is to enhance the high pressure zone at the level of the gastroesophageal junction and thereby reduce gastroesophageal reflux. Various surgical and endoscopic techniques have been developed with this aim in mind, but their use is often hampered by adverse effects and poor efficacy.

Previous work has shown electrical stimulation to increase resting LES pressure in animal models of GERD. “We have performed the first trial in humans, which was designed as a proof of concept study,” explains Edy Soffer, corresponding author. This study aimed to assess both the safety of the procedure and also the effect of electrical stimulation on LES pressure.

10 patients with GERD were enrolled in the study and electrodes were placed longitudinally in the LES. LES pressure

and symptoms of chest pain, abdominal pain and dysphagia were recorded before, during and after electrical stimulation.

“The study showed that acute electrical stimulation of the LES can enhance LES pressure in humans, without adverse effects,” reports Soffer.

These results have led the investigators to suggest that electrical stimulation could be a novel approach to the treatment of GERD. “An ongoing single center study is showing the efficacy of LES stimulation in improving symptoms, reducing esophageal acid exposure and improving LES pressure in patients with GERD,” concludes Soffer. “A multicenter study is planned for the near future.”

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