

#### PS01.056: ELECTRICAL STIMULATION OF THE LOWER ESOPHAGEAL SPHINCTER IN PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE AND IMPAIRED ESOPHAGEAL MOTILITY

Matthias Paireder, Ivan Kristo, Erwin Rieder, Katrin Schwameis, Johannes Steindl, Sebastian Schoppmann

Medical University of Vienna, Vienna/AUSTRIA

**Background:** Laparoscopic fundoplication (LF) is considered as standard surgical antireflux therapy. However, even if performed in specialized centers, the procedure can be followed by long-term side effects dysphagia, gas bloating or inability to belch. Especially patients with motility disorders (IEM) and concurrent GERD are prone to postoperative dysphagia after LF. The aim of this study is the evaluation of electrical stimulation (EST) of the lower esophageal sphincter (LES) in patients with IEM and GERD and its impact on procedure-related gastrointestinal side effects such as dysphagia.

**Methods:** This is a prospective, open-label, non-randomized single-center study. All variables are depicted as median and interquartile range (IQR) or 95% confidence intervals (CIs) or mean with standard deviation (SD). Ineffective esophageal motility (IEM) was defined as a Distal Contractile Integral (DCI) below 450 mmHg-s-cm in  $\geq 5$  of out 10 swallows. Differences in GERD health-related quality of life (HRQL) scores before and after treatment were compared with paired t-test due to a normal distribution. P-values  $< 0.05$  were considered significant.

**Results:** Between 05/2015 and 10/2017 twenty patients were treated with LES-stimulation for GERD. Thirteen patients (61.9%) presented with IEM in esophageal manometry before surgery and were included in this analysis. DCI was 91 (IQR 30.5–331.5) mmHg-s-cm. Median 24-hours esophageal pH at baseline was 10.2% (IQR 4.4–21.5). Fifty-seven percent of patients were treated with PPI at time of surgery. Nine patients (69.2%) presented with typical GERD symptoms whereas 6 patients (46.2%) also presented with atypical GERD symptoms. BMI was 26.1 (SD 4.9). Eight patients (61.5%) showed a hiatal hernia at the time of surgery and underwent also hiatal repair. Operating time was 59 minutes (IQR 34.5–70.25). HRQL for heartburn at baseline was 21.1 (SD 5.4) and improved to 7.3 after surgery (SD 6.7) at follow up of one month (mean difference 13.8 (CI 12.5–15.1)  $P < 0.001$ ). HRQL for regurgitation at baseline was 18.69 (SD 6.9) and improved to 3.84 (SD 2.4) (mean difference 14.9 (CI 13.95–15.76)  $P < 0.001$ ). No patients showed any clinical signs of dysphagia nor impaired findings in postoperative contrast swallow. Gastrointestinal side effects such as the inability to belch or bloating were not seen in any patients. There were no severe adverse events related to the procedure, but one patient need re-do surgery and re-implantation of the LES-stimulation due to a breaking of the lead close to the implanted pulse generator after one year.

**Conclusion:** LES-EST was introduced as a potential alternative technique to avoid side effects of LF. It was demonstrated that LES-EST significantly raises the LES pressure and improved GERD symptoms such as heartburn and regurgitation. The advantage of this procedure is that the anatomy of the esophageal-gastric junction is not altered dramatically.

**Disclosure:** All authors have declared no conflicts of interest.

**Keywords:** Electrical stimulation of the lower esophageal sphincter, Gastroesophageal reflux disease, Ineffective Esophageal Motility

#### PS01.057: THYROIDECTOMY AND LARYNGO-PHARYNGEAL REFLUX: WHAT'S NEW

Ina Macaione<sup>1</sup>, Alessia Cusimano<sup>1</sup>, Calogero Cipolla<sup>1</sup>, Giuseppa Graceffa<sup>1</sup>, Gianni Pantuso<sup>2</sup>, Eugenio Fiorentino<sup>1</sup>

<sup>1</sup>Polliclinico Paolo Giaccone, Palermo/ITALY, <sup>2</sup>University of Palermo, Palermo/ITALY

**Background:** 'Local neck symptoms' may be related to goiter; a persistence of those symptoms after an uncomplicated total thyroidectomy (TT) might be referred to the laryngo-pharyngeal reflux (LPR). Our previous study found a correlation between goiter and LPR in selected patients with local neck symptoms; the purpose of our current study is to investigate the presence of a laryngopharyngitis in patients with goiter, before and after TT, even in the absence of local neck symptoms, assessing whether the presence of LPR may play a role at the outset of the symptomatology.

**Methods:** Two groups of patients were considered and they differed for the presence or absence of local neck symptoms: group A (25 patients) and group B (40 patients). The clinical evaluation was standardized using the reflux symptom index. The patients were subjected to videolaryngoscopy (VLS) and to esophageal videofluorography (VFGE) before and three months after surgery.

**Results:** Before surgery all the patients in group A showed a normal vocal chord motility and laryngitis findings at the VLS. The VFGE was positive to abnormal swallowing in 86% of patients. The laryngitis findings at VLS, were found in 38% of cases in group B. At VFGE 96% of the patients were positive to the test. The symptoms reported in the pre-operative were unchanged after surgery in group A. In group B 63% of patients remained positive; at VFGE 73% had a clear pathological condition.

**Conclusion:** In 2010 'Amelita' study concluded that LPR should be taken into account as a possible movens of post-thyroidectomy clinical picture, both in the diagnosis and in the therapeutic management of those patients who complained about local neck symptoms, since the only TT hadn't been effective. The collected data of the current study are consistent with those of the previous study: symptoms persisted or increased in laryngopharyngeal reflux-positive patients, while in the control group the symptoms were absent or the new appearance symptomatic pictures were moderate. It is a shared view that we shouldn't wait for the overt clinical picture, but prevent it. It is essential to identify, through a careful pre-operative evaluation, patients positive to LPR.

**Disclosure:** All authors have declared no conflicts of interest.

**Keywords:** Laryngo-pharyngeal reflux, Total Thyroidectomy

#### PS01.058: OLDER AGE AND DEMENTIA MIGHT BE CONSIDERED BACKGROUND FACTORS OF BLEEDING FROM EROSIIVE REFLUX ESOPHAGITIS WITH ESOPHAGEAL ULCER

Tomohiro Kato, Yukari Uno, Hironao Ichikawa, Yuhei Iwasa, Chiemi Nakayama, Hideyuki Ogiso, Mitsuru Okuno, Yusuke Suzuki, Tomio Ogiso, Tsuyoshi Mukai, Hideki Hayashi, Akihiko Sugiyama, Yoichi Nishigaki, Eiichi Tomita

Gifu Municipal Hospital, Gifu-city/JAPAN

**Background:** Hematemesis is one of the most eventful complications in patients with reflux esophagitis (RE). But bleeding is not observed in all patients who have RE with esophageal ulcer. We retrospectively studied the association of bleeding with background factors in patients with RE with esophageal ulcer.

**Methods:** Between January 2013 and January 2018, 30 patients were endoscopically diagnosed as RE with Los Angeles classification D (LA-D). These 30 patients were enrolled in our study. Fifteen of them were suddenly admitted to our hospital because the RE exhibited bleeding (B-group). Patients with Mallory-Weiss syndrome, peptic ulcers, and any malignancies were excluded as possible sources of the bleeding. Bleeding was not observed in the remaining 15 RE patients (NB-group). In these 30 patients, we retrospectively studied the relations between the bleeding and the following background factors: age, gender, body mass index (BMI), esophageal hiatal hernia, endoscopic atrophy of the gastric mucosa which is related to the secretion of gastric juice, cognitive decline (so called dementia), diabetes mellitus, and drugs (NSAIDs, PPI).

**Results:** The B-group included 5 males and 10 females. The NB-group also included 5 males and 10 females. The mean age of the B-group was  $81.7 \pm 8.2$  (M  $\pm$  SD) yrs, which was statistically ( $P < 0.05$ ) greater than that of the NB-group, which was  $71.5 \pm 11.0$  yrs. Older age, larger esophageal hiatal hernia, and cognitive decline (so-called dementia) were significantly ( $P < 0.05$ ) associated with bleeding on logistic regression analysis. Multiple logistic regression analysis showed that older age and dementia were significantly ( $P < 0.05$ ) associated with bleeding.

**Conclusion:** It is well known that esophageal hiatal hernia is a major factor in erosive RE, such as RE with LA-D. On the other hand, it was speculated that older RE patients and those with cognitive decline could not easily explain their RE complaints, and their condition might be left unattended for long periods. This lack of attention may result in sudden bleeding in patients with non-treated RE. Further studies are needed.

**Disclosure:** All authors have declared no conflicts of interest.

**Keywords:** bleeding, background factor, reflux esophagitis

#### PS01.059: REFLUX RELATED SYMPTOMS ARE LESS COMMON IN SOUTH-EAST HUNGARIAN SUBJECTS, THAN EXPECTED ON THE BASIS OF EPIDEMIOLOGIC STUDIES OF THE WESTERN COUNTRIES

Krisztina Helle<sup>1</sup>, Lenke Bálint<sup>1</sup>, Georgina Ollé<sup>1</sup>, Klára Vadász<sup>1</sup>, Orsolya Inceze<sup>1</sup>, Richárd Róka<sup>1</sup>, Veronika Szekeres<sup>2</sup>, Tibor Wittmann<sup>1</sup>, Andras Rosztoczy<sup>1</sup>

<sup>1</sup>University of Szeged, Szeged/HUNGARY, <sup>2</sup>Hungarian National Blood Transfusion Service, Szeged/HUNGARY

**Background:** Most population based epidemiologic studies indicate approximately 20% prevalence of Gastroesophageal Reflux (GER) related typical