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## Safety and tolerability of BRAVO capsule pH monitoring

*BRAVO kapsül pHmetri yönteminin güvenlik ve uygulanabilirliği*

*To the Editor,*

Ambulatory pH monitoring is a valuable tool in the diagnosis and management of gastroesophageal reflux disease. Catheter-based pH monitoring is the traditional method for this test, but patient discomfort is not uncommon. Recently, placement of a BRAVO pH capsule is being used as a fast and relatively comfortable alternative method (1,2).

In the gastroenterology unit of Kent Hospital, BRAVO capsule pHmetry was performed in 64 patients (37 male, 27 female; mean age: 37.9 (25-58) years) during the period 2006 - 2010. Indications for pH testing were preoperative evaluation in 17 patients, evaluation of atypical reflux symptoms in 40 patients and "other" in the remaining patients.

The capsule pHmetry system consists of a delivery system, a vacuum pump, the receiver, and the pH capsule. The receiver should be powered by long-life lithium batteries considering that the measurement lasts for 48 hours. Before placing the capsule, calibration is completed as directed by steps displayed on the screen of the receiver.

An upper gastrointestinal (GI) endoscopy under midazolam sedation is performed first, and the exact distance of the squamocolumnar junction is measured. Then, the delivery system is introduced and the capsule is placed with the vacuum force of

510 mmHg for 30 seconds, 6 cm above the squamocolumnar junction.

After the recovery, the patient is instructed to fill the diary, to keep the receiver on the belt attached to the body during the daytime (and a maximum 2-3 meters apart while sleeping), for the following 48 hours. The patient is informed to consume a normal diet, including the foods that provoke symptoms, and to undertake usual daily activities including any sporting activities that can be performed while carrying the receiver on the belt. It is also mentioned that some discomfort may be felt in the retrosternal region for the following 24 hours, for which diclofenac 50 mg is prescribed, and the patients are told to take one tablet in the event of severe pain.

The study was successfully completed in 62 patients. In 2 patients, an early fall on to the stomach –in 6 hours- caused failure of the procedure. All of the patients were questioned regarding the presence of pain or discomfort at the end of the second day. Eleven patients experienced mild to moderate retrosternal pain or discomfort, but only 3 of them took diclofenac tablets. No limitation of eating or swallowing was observed in any patient, and there was no need for early removal of the capsule endoscopically in any patient.

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At the end of 48 hours, the results were obtained and evaluated, and DeMeester scores and symptom correlation for each patient were defined successfully.

We concluded that BRAVO capsule pHmetry is a safe and well-tolerated technique for ambulatory pH monitoring.

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# Intragastric band erosion due to band slippage after laparoscopic adjustable gastric banding: the Gastroenterologist aspect

*Laparoskopik ayarlanabilir gastrik band uygulaması sonrası bandın kayması nedeniyle gelişen intragastrik band erozyonu: Gastroenterolog bakışı*

To the Editor,

Bariatric surgery is a currently proven, effective treatment for morbid obesity, and laparoscopic adjustable gastric banding (LAGB) is one of the most popular minimally invasive restrictive procedures (1-3). With this method, a band can be placed laparoscopically around the proximal side of the stomach about 2 centimeters distal to the gastroesophageal junction. This leads to creation of a pouch that contains a volume of about 15 milliliters so that digestive volume can be restricted to this amount (1). The complications reported for LAGB range from trivial infections at the port site to life-threatening hemorrhage. The major complications due to the procedure include band slippage, pouch dilation and intragastric band migration or band erosion (1-3). Herein, we present the gastroscopic findings of a patient with intragastric band erosion due to band slippage.

A 34-year-old female admitted to our clinic with the complaints of abdominal discomfort, nausea,

vomiting, and stabbing pain with eating for 15 days. The patient's history was notable only for morbid obesity treated with LABG (A.M.I. Soft Gastric Band Premium Long Adjustable Gastric Banding Implant, AGB 376) two years prior to admission. The patient also reported that she had regained weight in the last few months. On physical examination, her vital signs were within normal limits, the epigastrium was slightly painful at palpation and bowel sounds were normoactive. The laboratory tests demonstrated a slightly low hemoglobin level of 11.7 g/dl (normal range: 12-14.5 g/dl) and high white blood cell count, at 13,400/uL (normal range: 4,000-10,000/uL). Upper gastrointestinal endoscopy was performed, and surprisingly, a part of the band was seen to be localized at the incisura angularis of the stomach (Figure 1). The distal part of the stomach (at the level of the incisura angularis) was wrapped tightly around the band, like a ring encircling a finger, pro-

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