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REAL TIME CONTINUOUS HIGH RESOLUTION MANOMETRY DURING HELLER MYOTOMY- DOR FUNDOPLICATION FOR THE TREATMENT OF ACHALASIA. COULD IT GUIDE SURGICAL TECHNIQUE TOWARDS EXCELLENT RESULTS?

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BACKROUND

High Resolution Manometry (HRM) is emerging to become the gold-standard diagnostic tool of achalasia of the esophagus. Surgical myotomy is one of the most effective treatment options. Nevertheless, up to 10% long-term failure rate is recorded, which is mainly caused by either incomplete myotomy or tight fundoplication [1,2]. In the past, conventional manometry has been used intraoperatively [3,4]. However, it is the simultaneous real-time use of HRM that provides the potential to anatomically identify remaining high pressure zones during myotomy. Therefore, we aim to introduce the intraoperative use of HRM during Heller myotomy and Dor fundoplication in order to tailor surgical technique.

METHODS

Sixteen patients with achalasia referred to our department. Fifteen of the patients underwent laparoscopic surgery, while one with a history of previous myotomy and recurrent dysphagia underwent open surgery. All patients included had preoperatively completed at least one manometric study. We collected intraoperative manometry data. The patients are followed-up with Eckardt scores and a repeat manometric test at six months after surgery.

RESULTS

The technique was successfully completed without any perioperative complications. All patients were discharged on the second postoperative day. Immediate results (on the first month) were successful in regards of dysphagia and lack of reflux symptoms (regurgitation, heartburn, chestpain).

Seven patients have completed six-month follow-up with maintenance of the excellent result. More precisely, among those patients, Eckardt score decreased from 5.8 to 1.2 on the sixth month. Additionally, HRM manometry was individually performed.

DISCUSSION

According to the literature, failure of surgical treatment of achalasia is estimated approximately 10% [1,2]. However, HRM may provide an accurate evaluation of the extent of myotomy and tightness of fundoplication in order to individualize surgical technique. Thus, we introduce the simultaneous use of HRM during Heller myotomy and Dor fundoplication proposing tailoring of the technique with intent for the optimal surgical result.

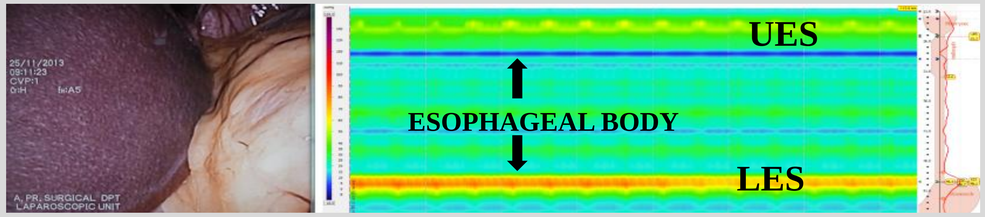

Fig.1. Gas insufflation

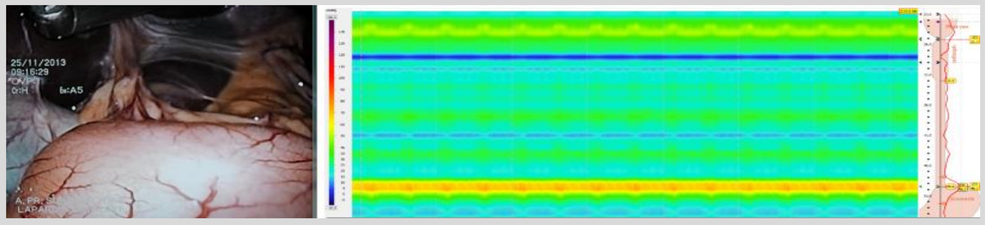

Fig.2. Liver retraction

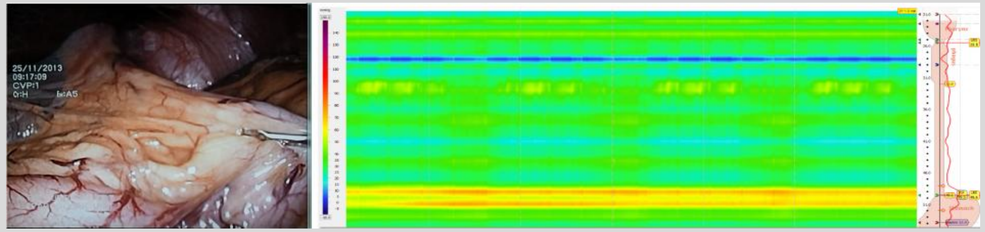

Fig.3. Gastric grasper

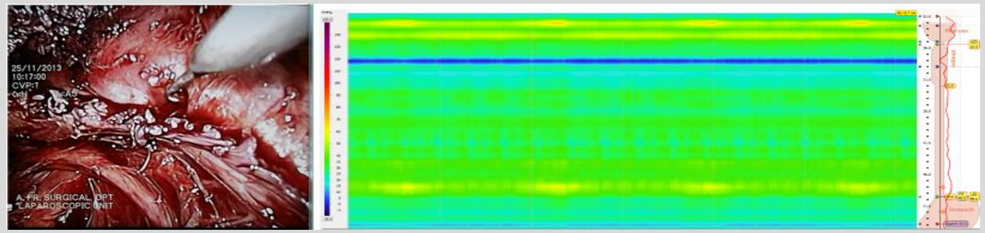

Fig.4. Myotomy

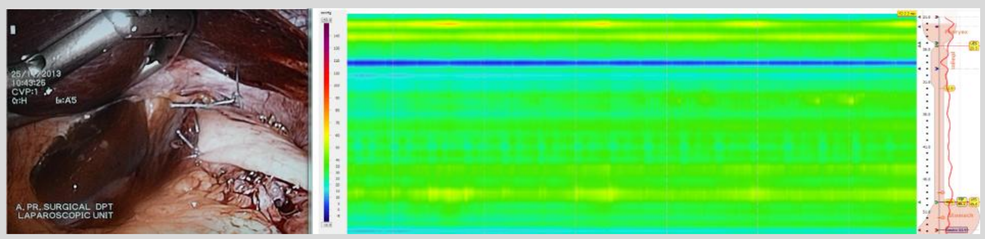

Fig.5. Dor fundoplication

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