

# **The evaluation of safety of the advanced endoscopic techniques: a single centre analysis of 383 cases.**

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## **Introduction**

Nowadays endoscopic techniques enable the management of GI tract lesions in both upper and lower part with the excellent results. However, the safety of these procedures remains a point of concern as complications such as major bleeding, perforation or the need of additional surgical treatment can pose a serious risk for the patients. Moreover, the longer hospital stay due to the complications can lead to increased costs of treatment.

## **Study description**

We have retrospectively analysed 383 cases managed in the Endoscopic Centre of our Institution from February 2015 to December 2017. In this period 325 ESD (endoscopic submucosal dissection) for the lower GI tract lesions and 31 for upper GI tract lesions were carried out. Moreover, 27 POEM (peroral endoscopic myotomy) procedures due to achalasia were also performed.

Regarding complications, the ones associated with the lesions located in the lower part of GI tract occurred mainly intraoperatively (perforation [7,7%], bleeding [4,6%], subcutaneous emphysema [1,2%]). Overall, lesions located within colon were associated with higher complications rate than those located within rectum (19,15% vs. 8,65% respectively,  $p < 0,0001$ ). In 2 cases (0,6%) conversion was required due to perforation. In 4 cases (1,2%) readmission was needed due to the delayed bleeding. In terms of upper GI tract lesions, apart from one case of major bleeding, no serious intraoperative complications occurred. Regarding POEM cases no serious complications occurred, though in one case prolonged hospitalization was required.

The mean time of hospitalization after ESD procedures was 4,6 days (median of 4 days), while the mean hospitalization after POEM was 3 days (median of 4 days).

## **Conclusions**

Our study shows that advanced endoscopic techniques do not pose a great risk for the patients. It should be underlined that overall these procedures are associated with relatively low rate of complications and do not require long hospital stay. Therefore, they seem to be the safest, the most acceptable in the eyes of the patients and the most cost-effective methods of the management of early GI tract lesions.

**Kategoria:** K2. Wyzwania chirurgii XXI wieku – możliwości i ograniczenia / Operacje z wykorzystaniem technik minimalnie inwazyjnych / Twenty-first century surgery challenges – possibilities and limitations / Operations using minimally invasive techniques