



# THE IMPACT OF USE OF GENERAL ANAESTHESIA ON THE RESULTS OF ENDOSCOPIC TRANSPAPILLARY INTERVENTIONS



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## Abstract

The high diagnostic value of Transpapillary Endoscopic Interventions (TEI) largely due to their invasiveness, which may contribute to adverse reactions and complications. We analyzed the influence of general anaesthesia on the results of TEI, complication rate and patients satisfaction.

## Introduction

Endoscopic interventions is invasive, unpleasant and painful manipulations. Although some patients agree to perform diagnostic and therapeutic procedures without medical support, the use of sedatives is associated with higher levels of patient satisfaction and quality of the procedure. In KECH 10 about 700 endoscopic Transpapillary (transduodenal) interventions run every year. Transpapillary endoscopic surgery (TES) shows patients with acute biliary pancreatitis with complicated course of gallstones, papilloma's with tumors, acute pancreatitis accompanied by jaundice (hypertension duct), cholangitis.

## Materials and methods

In 2016, ETI were conducted in 697 patients: 315 (45.2%) were diagnostic, in 382 (54.8%) - treatment. In 631 (90.5%) patients was used local anaesthesia of the pharynx and superficial sedation (benzodiazepine) by gastroenterologist (GDS group), in 66 (9.5%) - general anesthesia (propofol, phentanyl, rocuronium) with orotracheal intubation - ADS group. In 2016 the proportion of patients with ADS increased by 6 times compared to the previous year: 11 (1.86%) in 2015 to 66 (9.5%) in 2016. To evaluate patient's satisfaction with the endoscopy, we developed a questionnaire (Q=15) and asked the patients to fill it within 72 hours after the procedure. Response options were presented on a 7-point Likert scale. The degree of postoperative pain was evaluated by numerical pain scale (NPS) of 0 to 10.



Figure 1. Patient during ERCP



Figure 2. ERCP, CBD stone extraction

## Results

In GDS group duration of surgery was  $61,50 \pm 4,01$  min, and in ADS group -  $36,50 \pm 2,84$  min,  $p < 0.05$ . NPS in ADS group -  $1,89 \pm 0,36$  points, in GDS -  $4,78 \pm 0,65$  ( $p < 0.05$ ). The level of satisfaction manipulations by The Likert Scale in ADS -  $6,100 \pm 0,189$  points, in the GDS group -  $2,600 \pm 0,281$  points. Number of complications in GDS: bleeding after papillotomy - 2.4%, the progression of suppurate cholangitis - 1.6%, postoperative acute pancreatitis - 1.4%, duodenal perforation - 0.3%, the syndrome of "discharge" - 0.3%. In ADS 1 cases of bleeding after papillotomy (1.5%). The average age of patients who received the intervention, were carried out in conditions of anaesthesia, among men was 63.4 years, for women - 68.9 years, the oldest patient female - 91 years old, male - 87 years old.

Pathology	Interventions (n = 697)
Various forms of choledocholithiasis	312 (44,8%)
Constrictive papillitis	58 (8,3%)
Acute pancreatitis	24 (3,4%)
Iatrogenic bile duct injury	27 (3,9%)
- sent from other medical institutions	24 (88,9%)
Congenital malformations of bile ducts	7 (1,0%)
Blastomatoze biliary obstruction	269 (38,6%)

## Conclusions

According to the our data, the use of general anesthesia in ETI provides patient satisfaction, reduces surgery duration almost twice (1.7 times). accelerates early activation of patients due to the minimum level of pain in the postoperative period (NPS 2 or less) and improves the technical conditions to perform ETI with affect the level of postoperative complications and significantly minimizes them.

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