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**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1111647>Available online at: <http://www.iajps.com>**Research Article****ENDOSCOPIC SURGICAL INTERVENTIONS IN TREATMENT  
OF PERIAMPULLARY CANCER**

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**Abstract:**

*We carried out the retrospective analysis of the results of treatment of 386 patients with periampullary cancer, complicated by obstructive jaundice. All patients were divided into two groups: the first group included patients who underwent traditional surgical interventions, and the second group included endoscopic transpapillary surgeries. Pancreas head cancer was detected in 177 patients, major duodenal papilla cancer - in 145, cancer of the common bile duct terminal portion - in 64 patients. Duration of the bile ducts obstruction lasted from 3 to 45 days. The presence of obstructive jaundice in this category of patients was considered an indication for performing endoscopic transpapillary decompressive interventions, regardless of whether the volumetric formation was determined in the projection of the major duodenal papilla.*

*The authors showed that the endoscopic transpapillary interventions are the main method of decompression of the biliary tree, enabling to completely abandon the performance of traditional surgical interventions with unresectable cancer of organs of the pancreatoduodenal region complicated by obstructive jaundice.*

**Key words:** endoscopy interventions, periampullary carcinoma, obstructive jaundice

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**INTRODUCTION:**

Widespread introduction of minimally invasive technologies into surgical practice in the treatment of patients with diseases of liver, pancreas, bile ducts enabled to significantly expand the possibilities of providing surgical care to patients without large surgical interventions [1,2]. However, both traditional and minimally invasive interventions have their own range of capabilities, so they require a differentiated approach and the definition of indications and contraindications. The issues of indications and the choice of the most advanced methods of "minimally invasive surgery", as well as the relationship between them and the methods of traditional surgery performed by laparotomy, are at the heart of the discussion of surgeons, endoscopists, radiologists, endosurgery specialists who often express polar opinions and give diametrically opposed recommendations [3-6]. Unfortunately, at present there are no clear objective criteria that allow choosing the optimal surgical tactics of differentiated treatment in the treatment of benign and malignant diseases of the organs of pancreatoduodenal region, and the literature data indicate a steady increase in the number of patients with this pathology [6-10].

**MATERIALS AND METHODS:**

We carried out a retrospective analysis of the results of treatment of 386 patients with periampullary cancer

complicated by obstructive jaundice at the Center for Liver and Pancreas Surgery of St. Joasaph Belgorod Regional Clinical Hospital. All patients were divided into two groups: the first group included patients who underwent traditional surgical interventions, and the second group included endoscopic transpapillary surgeries.

Pancreas head cancer was detected in 177 patients, major duodenal papilla cancer - in 145, cancer of the common bile duct terminal portion - in 64 patients. Duration of the bile ducts obstruction lasted from 3 to 45 days. The presence of obstructive jaundice in this category of patients was considered an indication for performing endoscopic transpapillary decompressive interventions, regardless of whether the volumetric formation was determined in the projection of the major duodenal papilla.

**RESULTS AND DISCUSSION:**

We carried out the analysis of immediate results of endoscopic and surgical methods of treatment in this group of patients. The analysis shows a comparable level of postoperative complications ( $p = 0.096$ ), while the level of lethality with traditional surgical interventions is undeniably higher ( $p = 0.013$ ) (Table 1, 2).

**Table 1: Complications and lethality in the group of patients who underwent traditional surgical interventions.**

Surgery type	Number	Complications	Lethality
Pancreatoduodenal resection	66	24 (36.3%)	4 (6%)
Biliiodigestive anastomoses	62	10 (16.1%)	1 (1.6%)
Transduodenal papillectomy	14	2 (14.2 %)	1 (7.1%)
Other	5	2 (40%)	0
Total	147	38 (25.8%)	6 (4%)

**Table 2: Complications and lethality in the group of patients who underwent endoscopic surgical interventions.**

Surgery type	Number	Complications	Lethality
Biliary stenting	144	57 (38.8 %)	0
Endoscopic papillotomy	46	9 (17.7 %)	1 (2.2 %)
Endoscopic suprapapillary choledochoduodenostomy	11	1 (9 %)	0
Total	201	67 (33.5 %)	1 (0.5 %)

We studied the long-term results of treatment of this group of patients. The analysis showed the advantage of endoscopic treatment methods in comparison with the traditional surgical ones when treating the major duodenal papilla cancer, as it was revealed a large median of life expectancy - 891.1 and 585 days, respectively. The main method of decompression and palliative treatment for this pathology is endoscopic papillotomy through a tumor and biliary stenting, which allows stopping jaundice in patients with a high degree of operational risk.

The results of surgical treatment of pancreas head cancer are better than in other groups (the largest median of life expectancy is 500 days in patients after pancreatoduodenal resection). The results of endoscopic transpapillary stenting and traditional biliodigestive anastomoses differ little from each other (the median of life expectancy is 225.7 and 299.0, respectively). In this case, it should be noted that endoscopic stenting does not require anesthesia, it is easier to tolerate by patients, complications (despite their greater percentage) are controlled and easily amenable to correction.

The long-term results of various types of operative treatment when treating the common bile duct cancer differed little from each other, the average life expectancy of patients did not exceed 1 year.

### SUMMARY.

The endoscopic transpapillary interventions are the main method of decompression and palliative treatment of patients with periampullary cancer complicated by obstructive jaundice (Guo, Liu, Lu *et al.*, 2014; Ahn, Bekaii-Saab, 2014). Transduodenal papillectomy and biliodigestive anastomoses have now lost their relevance and should be resorted to only if radical or endoscopic interventions cannot be performed. The statistical analysis performed demonstrates the safety of endoscopic transpapillary interventions compared to traditional surgical interventions in patients with periampullary cancer.

In the treatment of resectable cancer of the major duodenal papilla, pancreatoduodenal resection should be considered the surgery of choice, since the best long-term results are recorded in this surgery (our observations showed a five-year survival rate of 57.5%). When comparing the results of traditional surgical and endoscopic methods of treatment, it was found that cumulative survival of more than 50% was observed in the group of patients with pancreatoduodenal resection, more than 25% - in the groups of transduodenal papillectomy and endoscopic

papillotomy. The long-term results of palliative treatment of patients also showed the advantage of endoscopic treatment methods over traditional surgical methods, since there was a significantly greater median of life expectancy after them - 891.1 and 585 days, respectively (Wittel, Makowiec, Sick, 2015; Bhatti, Yosuf, Syed, 2014).

The long-term results of treatment of pancreas head cancer cannot be called satisfactory (the largest median of 500 days is observed in the group of patients after pancreatoduodenal resection). The results of endoscopic transpapillary stenting and open biliodigestive anastomoses differ little from each other, however, endobiliary stenting does not require anesthesia, it is easier for patients to tolerate, complications (despite their greater percentage) are controlled and easily amenable to correction (Bhatti, Yosuf, Syed, 2014; Lemke, Schafer, Sander, 2014).

Thus, based on the conducted studies, it can be concluded that the endoscopic transpapillary interventions are the main method of shunting the biliary tree, enabling to completely abandon the performance traditional surgical interventions in patients with unresectable periampullary cancer complicated by obstructive jaundice, as well as in elderly patients with severe concomitant pathology.

### CONCLUSIONS:

In the treatment of patients with periampullary cancer complicated by obstructive jaundice, the surgical endoscopy methods are one of the priority methods of diagnosis and treatment. The endoscopic transpapillary interventions at the current stage can significantly reduce the number of traditional surgical operations, which ultimately leads to a reduction in the number of postoperative complications, lethality and improves the quality of life of patients.

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