

# СОВРЕМЕННЫЕ ВЗГЛЯДЫ НА ПРОБЛЕМУ ДИАГНОСТИКИ И ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ БОЛЬНЫХ ОСТРЫМ ПАНКРЕАТИТОМ, ОСЛОЖНЕННЫМ МЕХАНИЧЕСКОЙ ЖЕЛТУХОЙ

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**Аннотация:** Проведен ретроспективный анализ результатов хирургического лечения двух групп пациентов (12 больных в первой и 25 – во второй) по поводу нерезектабельного рака головки поджелудочной железы, что осложнено механической желтухой. Больным I группы осуществляли только билиодигестивное шунтирование путём открытых оперативных вмешательств. Больным II группы - обструкцию желчных протоков устраняли путем эндоскопического стентирования билиарной системы. Доказано, что эндоскопическое стентирование билиарной системы по сравнению с открытыми хирургическими операциями сопровождается меньшей частотой послеоперационных осложнений (73,5 % против 25,1 %,  $p < 0,05$ ), летальностью (29,1 % против 0,1%,  $p < 0,001$ ) и уменьшением сроков пребывания в стационаре (с  $24,3 \pm 3,74$ ) до  $(8,7 \pm 0,91)$  дней,  $p < 0,001$ ).

**Ключевые слова:** рак поджелудочной железы, обтурационная желтуха, эндоскопическая ретроградная дренирование желчных путей.

## OBSTRUKTIV SARIQLIK BILAN ASORATLANGAN O'TKIR PANKREATIT BILAN OG'RIGAN BEMORLARNI DIAGNOSTIKA QILISH VA JARROHLIK DAVOLASH MUAMMOSIGA ZAMONAVIY QARASHLAR

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**Annotatsiya:** Obstruktiv sariqlik bilan asoratlangan oshqozon osti bezi boshining rezektsiya qilinmaydigan saratoni uchun ikki guruh bemorlarni (birinchi guruhda 12 bemor va ikkinchisida 25 bemor) jarrohlik davolash natijalarini retrospektiv tahlil qilish amalga oshirildi. I guruh bemorlari ochiq jarrohlik aralashuvlar orqali faqat biliodigestiv davolash usuli o'tkazildi. II guruh bemorlarida o't yo'llarining obstruksiyasi o't yo'llarining endoskopik stentlash yo'li bilan bartaraf etildi. Ochiq jarrohlik operatsiyalari bilan solishtirganda, o't yo'llarining endoskopik stentlanishi operatsiyadan keyingi asoratlar (73,5% ga nisbatan 25,1%,  $p < 0,05$ ), o'lim (29,1% ga nisbatan 0,1%,  $p < 0,001$ ) bilan birga ekanligi isbotlangan) va kasalxonada kuyka-kunlar soni ( $24,3 \pm 3,74$ ) dan  $(8,7 \pm 0,91)$  kungacha  $p < 0,001$ ) pasayishi kuzatildi.

**Kalit so'zlar:** meda osti bezi, obturatsion sariqlik, o't yo'llarining endoskopik retrograd drenajlash.

## MODERN VIEWS ON THE PROBLEM OF DIAGNOSIS AND SURGICAL TREATMENT OF PATIENTS WITH ACUTE PANCREATITIS COMPLICATED BY OBSTRUCTIVE JAUNDICE.

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**Annotation:** A retrospective analysis of the results of surgical treatment of two groups of patients (12 patients in the first and 25 in the second) for unresectable cancer of the head of the pancreas, which was complicated by obstructive jaundice. Patients of group I underwent only biliodigestive shunting through open surgical interventions. In group II patients, bile duct obstruction was eliminated by endoscopic stenting of the biliary system. It has been proven that endoscopic stenting of the biliary system, compared with open surgical operations, is accompanied by a lower incidence of postoperative complications (73.5% versus 25.1%,  $p < 0.05$ ), mortality (29.1% versus 0.1%,  $p < 0.001$ ) and a decrease in hospital stay (from  $24.3 \pm 3.74$ ) to  $8.7 \pm 0.91$  days,  $p < 0.001$ ).

**Keywords:** pancreatic cancer, obstructive jaundice, endoscopic retrograde drainage of the bile duct.

**Introduction:** About 75% of patients with pancreatic head cancer (PHC) complicated by obstructive jaundice undergo only palliative surgical treatment aimed at eliminating cholestasis. However, in 5–8% of such patients, already at the initial visit, signs of gastric emptying disorders are detected. In 10–20% of patients who underwent only biliodigestive shunting, 4–5 months after correction of cholestasis, obstruction of the duodenum by a tumor develops with the progression of cachexia and gross metabolic disorders, which worsens the quality of life of patients and requires a second-second intervention [1–3]. Therefore, to resolve the issues of choosing surgical tactics and techniques for such operations, it is justified to conduct a comparative analysis of the effectiveness of open surgical interventions with minimally invasive endoscopic operations involving a stenting biliary system [7-8]. The problem of choosing a technology for surgical treatment of such patients acquires particular relevance in elderly people who, in addition to complications of the underlying disease, have severe concomitant pathology [4-6].

**Purpose of the study:** In patients with unresectable pancreatic head cancer, complicated by obstructive jaundice with high surgical and anesthetic risks (the physical status of the patients corresponds to ASA III gradation, according to the recommendations of the American Association of Anesthesiologists, 2020) endoscopic stenting techniques.

**Materials and research methods:** A retrospective analysis of the results of surgical treatment of two groups of patients (12 patients in the first and 25 in the second) hospitalized in the clinical bases of the Department of Faculty and Hospital Surgery of the Fergana Medical Institute of Public Health, which was complicated by obstructive jaundice, was carried out. Patients of group I underwent only biliodigestive shunting by open surgical interventions. Patients of group II underwent endoscopic non-transpapillary biliodigestive. The average age of patients in group I was  $(71.0 \pm 6.2)$  years, and in group II –  $(75.5 \pm 7.2)$  years. During hospitalization, the level of hyperbilirubinemia in group I individuals was  $(212.2 \pm 19.1)$   $\mu\text{mol/l}$ , group II -  $(190 \pm 18.3)$   $\mu\text{mol/l}$ . According to the main clinical and biochemical parameters, the comparative groups were representative. All patients had high surgical and

anesthetic risks (the physical status of the patients according to the classification of the American Society of Anesthesiologists, in 2020, corresponded to ASA III gradation). The diagnosis of pancreatic head cancer was verified in accordance with the European protocol for the treatment and diagnosis of pancreatic cancer Society For Medical Oncology, 2015-2019 and National Comprehensive Cancer Network (NCCN) guidelines, 2015-2021 [4, 5]. All patients suffered from stage IV pancreatic head cancer, and according to the histological structure, the cancerous tumor in all patients was identified as ductal adenocarcinoma. The resectability of tumors of the head of the pancreas was determined based on comparisons of data from clinical, laboratory, and radiation examination methods (multispiral CT, MRI, endoscopic ultrasonography) and the study included patients who, due to the generalization of the cancer process, manifestations of cholangitis, hepatorenal dysfunction, hemorrhagic syndrome, age, severe concomitant pathology, inadequate chemotherapy was contraindicated [5-7]. All of them were subject to only palliative symptomatic surgical treatment for the purpose of decompression of the biliary system. For stenting of the biliary system, nitinol stents Boston Scientific WallStent Biliary Uncovered 10 mm – 60 mm manufactured in the USA were used.

#### **Research results and discussion:**

Considering the extremely high risk of open surgical interventions in patients of group I in terms of timing (within 24–48 hours from hospitalization), only biliodigestive shunting was performed, which was performed in 6 patients in 2 stages (at the first stage, external under the cholangiost 6 - one stage, by applying various types of biliodigestive anastomoses. At the same time, the proportion of postoperative complications was 73.4%, and mortality was 26.6%. In patients of group I, disturbances in gastric evacuation were  $(1.75 \pm 0.5)$  points, however, due to the severe general condition and progression of the metastatic process, none of them underwent gastro digestive bypass surgery. The average life expectancy of their life after correction of cholestasis was  $(51.3 \pm 6.4)$  days. Therefore, the development and clinical testing of minimally invasive technologies can replace direct surgical interventions of biliodigestive bypass with internal endoscopic biliodigestive according

to indications. In patients of group II, correction of biliary obstruction was carried out endoscopically, according to urgent indications (within 24–48 hours from the moment of hospitalization), which included transpapillary stenting of the empty intestine with a probe for enteral nutrition. The proportion of postoperative complications in patients of group II was 22.22% with no mortality, which is 3.27 times less than in patients in the control group. The nobiliary stent provided an effective drainage function of the biliary tract in 85.2% of cases. Cholangitis, diagnosed in four patients, was eliminated by targeted antibiotic therapy, taking into account the results of bile cultures for the sensitivity of microflora to antibiotics, drainage sanitation, and intensive therapy. Endobiliary stents functioned effectively throughout the rest of the patients' lives. Analysis of the effectiveness of duodenal stenting in patients in the experimental subgroup showed clinically significant success of the procedure in all cases.

Thus, with an initial level of oral nutrition of ( $1.72 \pm 0.59$ ) points, after surgical correction, it was ( $2.53 \pm 0.54$ ) points ( $P < 0.001$ ), which indicates an unconditional improvement in oral nutrition. The effectiveness of the procedure varied. Thus, out of 27 patients, dysphagic and dyspeptic symptoms were eliminated in 21. In 6 people their severity became less, but these patients were able to eat orally until their death. In a comparative analysis of the length of hospital stay of patients in the control and experimental subgroups, it was found that this period was ( $24.3 \pm 3.74$ ) and ( $8.7 \pm 0.91$ ) days, respectively ( $P < 0.001$ ), which indicated undoubted advantages of endoscopic prosthetics of the biliary system before traditional methods of surgical treatment of patients. The average life expectancy after surgical correction in patients in the control group was ( $51.3 \pm 6.41$ ) days, and in patients in the experimental subgroup - ( $59.3 \pm 7.18$ ) days ( $P \geq 0.05$ ). As we can see, the difference in the duration of these periods is statistically insignificant, but fewer complications and the absence of mortality when replacing open surgical operations with minimally invasive endoscopic interventions in the scope of stenting of obstructed biliary tracts have undoubted advantages.

**Conclusions:** The operation of choice for palliative surgical treatment of patients with unresectable pancreatic head cancer, complicated by obstructive

jaundice and impaired gastric emptying, with a high risk of surgical interventions (ASA III), is endoscopic transpapillary stenting of the bile ducts.

In patients with unresectable cancer of the head of the pancreas, which is complicated by overnight endoscopic stenting biliary system, mortality (27.3% versus 0.0%,  $p < 0.001$ ) and a decrease in hospital stay (from ( $24.3 \pm 3.74$ ) to ( $8$ )  $7 \pm 0.91$ ) days,  $p < 0.001$ ). The advantage of endoscopic stenting of the biliary system, compared to open surgical interventions, is the rapid restoration of the physiological passage of bile. The procedure is easier to tolerate by patients, is accompanied by fewer complications, reduces mortality, and allows patients to begin to wonder naturally on the second day.

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