

**Cuvinte cheie:** coledocholitiază, litotripsie laser-asistată, vizualizare directă SpyGlass®

## COMPLEX FORMS OF CHOLEDOCHOLITHIASIS: MODERN APPROACHES OF THE TREATMENT

**Introduction:** The relevant and still not completely solved problem of modern surgery is the choledocholithiasis, the frequency of which in cholelithiasis is, according to different authors, from 10% to 23%. The surgery of choledocholithiasis, which are specially carried out in the emergency, are followed by a large number of complications, and lethality reaches 15-22%. Treatment of patients with complex forms of choledocholithiasis represents difficult and relevant tasks, and demands strictly individualized approach to the choice of tactics of the carried-out treatment.

**Material and methods:** Endoscopic surgery is now the "gold standard" in the treatment of choledocholithiasis. In most situations, endoscopic sphincterotomy in a combination of a lithoextraction with a basket and/or a balloon catheter is sufficient for the achievement of effect. A simple and effective method of treating "large stones" of 15 mm in size or larger or in the presence of stones above the structure of the bile ducts is the use of mechanical lithotripsy and/or endoscopic balloon dilation with a high-pressure balloon followed by lithoextraction.

However, if this does not help, a retrograde choledochoscopy with laser endoluminal lithotripsy is performed. In cases of the changed anatomy when it is difficult to reach the zone of the major duodenal papilla, transhepatic access or laparoscopically assisted cholangioscopy with lithoextraction or with laser lithotripsy is used.

**Results and conclusions:** The use of minimally invasive endobiliary technologies in patients with complex forms of choledocholithiasis allows for stage treatment to improve significantly the results of the treatment and reduces the number of postoperative complications.

**Keywords:** choledocholithiasis, endoscopic lithotripsy, laparoscopically assisted cholangioscopy, laser lithotripsy.

## TRATAMENTUL ENDOSCOPIC VACUUM-ASISTAT (E-VAC) A PACIENTILOR CU PERFORATII ESOFAGIENE

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**Introducere:** Perforatia esofagului este un eveniment care pune în pericol viața. Tratamentul chirurgical presupune operații de urgență și acestea adesea sunt asociate cu un risc ridicat de complicații postoperatorii. În cazul asocierii mediastinitei mortalitatea este înaltă - 40-80%. Principalele cauze ale letalității sunt mediastinita, empiemul pleural, complicațiile septice. Căutarea unor metode eficiente de corectare a complicațiilor postoperatorii este o problemă stringentă.

**Material și metodă:** Sub supravegherea noastră în perioada aprilie-mai 2019, au fost trei pacienți cu perforații al segmentului toracic al esofagului. Tuturor pacienților a fost aplicat tratamentul endoscopic vacuum-asistat (E-VAC). Pentru crearea presiunii negative intraluminală în zona insuficienței suturilor și la nivelul perforării esofagului, a fost utilizată o construcție constând din sonda nasogastrică cu un burete poliuretanic fixat în porțiunea distală. Poziționarea acestei construcții în esofag a fost efectuată sub control endoscopic; pacientul a fost supus unei anestezii intravenoase. Nivelul țintă al presiunii negative a fost de 100-150 mmHg. Buretele este înlocuit la fiecare trei-cinci zile.

**Rezultate:** În urma tratamentului endoscopic vacuum-asistat a avut loc închiderea completă a defectului esofagian, manifestările mediastinitei și empiemului pleural au fost cupate. Durata tratamentului spitalicesc a fost în medie 25 de zile.

**Concluzii:** În cazul insuficienței suturilor esofagului operat sau a perforațiilor esofagiene, pentru prevenirea patrunderii în mediastin și cavitățile pleurale a sucurilor digestive și a alimentelor; crearea condițiilor favorabile pentru stimularea proceselor de reparație în zona afectată tratamentul endoscopic vacuum-asistat poate fi recomandată pentru utilizarea pe scară largă.

**Cuvinte cheie:** Tratament endoscopic vacuum-asistat (E-VAC), perforația esofagului, mediastinita.

## ENDOLUMINAL PROLONGED ENDOSCOPIC VACUUM-ASSISTED CLOSURE THERAPY IN THE TREATMENT OF PATIENTS WITH PERFORATION OF THE THORACIC SEGMENT OF THE ESOPHAGUS

**Introduction:** Perforation of the esophagus is a life-threatening situation. Surgical treatment demand immediate surgery and is often accompanied by the high risk of the postoperative complications. Mortality, according to different authors, exceeds 80%. The main causes of death are progressive mediastinitis, empyema and sepsis. The searching of effective ways of correcting postoperative complication are a current problem.

**Material and methods:** Under our supervision from April to May 2019, there were three patients with perforations of the thoracic segment of the esophagus. All patients received endoscopic vacuum-assisted treatment (e-vac). For the creation of negative intraluminal pressure at the level of perforation of the esophagus, a construction consisting of nasogastric probe with a polyurethane sponge was used. The positioning of this construction in the esophagus was carried out under endoscopic control; the patient underwent intravenous anesthesia. The target level of negative pressure was 100-150 mmHg. Spongy is replaced every three to five days.

**Results:** Following the endoscopic vacuum-assisted treatment, the complete closure of the esophageal defect took place; the manifestations of mediastinitis and pleural empyema were cupped. The duration of hospital treatment was on average 25 days.

**Conclusions:** in case of insufficiency of the suture of the operated oesophagus or esophageal perforations, for prevention of penetration into the mediastinum and pleural cavity of digestive juices and food, creating favorable conditions for stimulating the repair processes in the affected area, endoscopic vacuum-assisted treatment can be recommended for widespread use.

**Keywords:** endoscopic vacuum-Assisted Treatment (E-VAC), perforation of the esophagus, mediastinitis.