



IMPROVEMENT OF METHODS OF DIAGNOSTICS OF HELIPOID DUCTS  
INJURIES IN LIVER INJURIES.

N.A. Salokhiddinov

G.N. Rayimov

Sh.Sh.Dekhkonov

*1 – Fergana medical institute of public health*

*2-Fergana branch of the Republican Scientific Center of Emergency Medical Care*

*2-Private Clinic “Endomed+”, Fergana region.*

### INTRODUCTION

Damage to the bile ducts in liver injury is rare and, according to literature, accounts for 0.3-0.8%. Damage to intra- and extrahepatic bile structures is usually detected in cases of extensive damage to the integrity of the organ parenchyma, with deep and penetrating wounds.

The aim of the study. To improve the methods of diagnostics and damage of bile ducts for choice adequate method of treatment and prevention- development of purulent - specific complications.

Materials and methods of the study. The results of surgical treatment of 33 victims with trauma of intra- and extrahepatic bile ducts in the department of 1-Emergency abdominal surgery of the Fergana branch of the RSC EMC, were analyzed. Closed trauma was detected in 19 cases, open - in 1. Five victims died, which amounted to -15%.

Results of the research and their discussion. Damage to the bile ducts is possible at any level -. Most often, with closed trauma, there is injury to the intrahepatic bile ducts (17) and less often - to the extrahepatic sections - (2), while with wounds - damage to the intrahepatic sections occurred in 9 cases, and extrahepatic - in 5.

Diagnosis of damage to intrahepatic bile structures on the operating table is difficult due to the peculiarities of the anatomical structure - narrow bile ducts running together with the portal triad. Damage to the bile ducts -at the subsegmental and segmental level, as well as at the lobar level, could not be identified in any observation, and damage to the lobar ducts (3) in penetrating wounds of the liver could not be identified.

It should be noted that there are also difficulties in diagnosing -damage to the extrahepatic bile ducts in the distal part of the common bile duct (3 cases). In open trauma, such damage was combined with wounds to the head of the -pancreas and duodenum (2). In both cases, despite the injury to the duodenum and head of the pancreas, damage to the anterior wall of the common bile duct -was not detected, and both patients were operated on a few days later against the background of bile peritonitis. -External drainage of the distal bile -duct and application of a cholecystostomy were performed . 1 patient died on the 3rd day after the operation, 1 was discharged, but a year later he underwent -reconstructive surgery for the formed stricture. Choledochojejunostomy was applied on the Roux-en- Y loop.



The most severe case was a victim with simultaneous trauma to the proximal part of the common bile duct, the left lobar hepatic duct and trauma to the common hepatic artery, which required its ligation. Damage to the bile ducts at various levels was detected in the post-traumatic period during fistulography and RPCG. The victim with damage to the retroduodenal part of the common bile duct and the left lobar duct underwent percutaneous transhepatic drainage of the bile ducts with drainage left in the duodenum. Postoperative management of the victims was carried out on the basis of a comprehensive instrumental assessment using ultrasound, ultrasound duplex scanning, fistulography, and ERCP. The appearance of bile through the drainage from the abdominal cavity in the early stages after surgery was observed in 4 patients, its amount fluctuated from 100 to 300 ml per day. These patients underwent ERCP to assess the condition of the bile ducts. As a result of the study, trauma to the common bile duct was detected in 1 patient, and trauma to the segmental bile ducts of the left lobe in 3 patients. Deterioration of the clinical condition on the 12-15th day after the injury was observed in 26 victims. This was manifested by the presence of hyperthermia, an increase in the liver size, and dynamic ultrasound indicated an increase in bilomas (5) and biliohemata (19) in the injury zone. After preliminary ultrasound dopplerography, these volumetric formations were drained. Of 26 patients, blood flow was detected only in 2 observations; these patients underwent angiography with subsequent embolization. Drainage under ultrasound was performed in 25 patients. Fistulography, performed after 7-14 days, made it possible to determine the level of damage to the intrahepatic bile ducts. In 5 patients with bilomas of segments IV-V and suspected injury to the intrahepatic lobar bile ducts, ERCP was additionally performed. In 4 patients, ERCP revealed injury to the lobar bile duct. These patients underwent PST to reduce cholestasis.

Of the 26 observed patients, 4 (15%) died: 1 from pulmonary embolism 2 months after the injury against the background of ongoing post-traumatic cholangitis, 1 with a similar injury to the lobar duct died from increasing liver failure, 2 from erosive bleeding from the liver vessels.

Conclusions. Thus, diagnostics of intrahepatic bile duct injuries on the operating table is difficult due to the peculiarities of the anatomical structure and the impossibility of a detailed assessment of the anatomical structures. If injury to the extrahepatic bile ducts is suspected, a targeted revision of the wound channel is necessary, especially in the area of pancreatic head injury. Comprehensive dynamic instrumental assessment of ultrasound, fistulography, and ERCP allows us to identify the level of bile duct injury, determine treatment tactics, and prognosis of the posttraumatic process.



LIST OF REFERENCES:

1. Абакумов М.М. Особенности диагностики повреждений живота у пострадавших с сочетанной травмой М.М. Абакумов, В.И. Малярчук, Н.В. Лебедев Скорая медицинская помощь. 2004. Т.5, 3. 140141.
2. Диагностика /С.А.Абдуллаев, и Р.А. хирургическая Содиков, тактика при и травмах др. печени Анналы Ф.О. Мизамов хирургической гепатологии. 2003. Т.8, №2. 128 129.
3. Диагностика и лечение ранений Под ред. Ю.Г. Шапошникова. М.: Медицина, 1984. 344 с.
4. Диагностика и хирургическая тактика при тяжелом закрытом повреждении живота А.Я. Фищенко, С. Колибаба, Д. Химич и др. //Клин, хирургия. 1992. 4. 41 43.
5. Долинин В. А. Необратимость состояний при травмах огнестрельных ранениях различной локализации В.А. Долинин Вестн. хир. 1991. 2. 47 51.
6. Холмухамедов, Ж. Р., Райимов, Г. Н., Косимов, Ш. Х., & Холмухаммедова, Д. Р. (2021). Возможности ультразвуковой диагностики в практике экстренного центра.
7. Abbreviated laparotomy and planned reoperation for critically injured patients J.M. Burch, V.B. Ortiz, R.J. Richardson et al. Ann. Surg. 1992. Vol.215, 5.-P.476-482.
8. Abdominal "packing": indications and method F. Stagnitti, L.Bresadola, S.M. Calderale, M. Coletti et al. Ann. Ital. Chir. 2003. Vol.74, №5. P.535-542.
9. Abikhaled J.A. Prolonged abdominal packing for trauma is associated with increased morbidity and mortality J.A. Abikhaled, T.S. Granchi, M.J.Wall Amer. Surg. 1997. Vol.63, №12. P. 1109 1112.
- 10.Active extravasation of arterial contrast agent on posttraumatic abdominal computed tomography M.F. Ryan, P.A. Hamilton, P. Chu, J.Hanaghan Can. Assoc. Radiol. J. 2004. Vol.55, №3. P. 160-169.
11. Acute abdominal pain in emergency surgery. Clinical epidemiologic study of 450 patients S. Caterino, M. Cavallini, C Meli et al. Ann. Ital. Chir. 1997. Vol.68, №6. P.807-817.
- 12.Adesanya A. A. Civilian abdominal gunshot wounds in Lagos /A.A.Adesanya, I.R. Afolabi, J.T. da Rocha-Afodu J. R. Coll. Surg. Edinb. 1998. Vol.43, №4. P. 230 -234.
- 13.Angiographic embolization for liver injuries: low mortality, high morbidity A.M. Mohr, R.F. Lavery, A. Barone, P. Bahramipour et al. J. Trauma. -2003. -Vol.55, №6. P 1077-1082.
- 14.Rayimov, G. N. (2021). Experience of using Minimally Invasive Interventions in Patients with Closed Trauma of the Abdominal Organs. Central Asian Journal of Medical and Natural Science, 2(6), 349-352.
- 15.Saloxiddinov, N., & Rayimov, G. N. (2023). Relevance and current state of the problem of diagnosing liver damage in closed abdominal trauma. In BIO Web of Conferences (Vol. 65, p. 05037). EDP Sciences.