



ALGORITHM FOR CHOOSING THE TYPE OF SURGICAL PROCEDURE FOR EXTRAHEPATIC BILE DUCTS IN PATIENTS WITH COMPLICATED CHOLELITHIASIS

Furkat Kayumovich Gulomov furkat_gulomov@mail.ru

**Bukhara State Medical Institute named
after Abu Ali ibn Sina Uzbekistan Bukhara.**

Relevance. The problem of extrahepatic bile duct (EHD) lesions in complicated cholelithiasis has remained one of the central issues in abdominal surgery over the past decades. The development of minimally invasive technologies has radically changed the tactics of surgical treatment of complicated forms of cholelithiasis (CD) (1,2,3,4).

The aim of the study was to develop a method for choosing a surgical operation for lesions of the extrahepatic bile ducts in patients with complicated cholelithiasis.

Materials and methods. The clinical material consisted of 127 patients with complicated forms of cholelithiasis, accompanied by lesions of the EHD of varying severity, who were treated and examined at the Republican Scientific Center for Emergency Medical Care of the Ministry of Health of the Republic of Uzbekistan.

Results and discussion. The proposed tactical algorithm ("decision tree") is an integral part of the developed treatment and diagnostic complex. It integrates morphological, clinical, laboratory, instrumental, and intraoperative data and enables a personalized approach to the surgical treatment of biliary tract lesions in complicated gallstone disease. The algorithm serves as a dynamic decision-making model, not only improving the safety of



laparoscopic interventions but also optimizing patient routing based on the risk and severity of the pathological process. The "decision tree" algorithm is used by surgeons as a practical tool to standardize the selection of the laparoscopic intervention and promptly adjust tactics based on current examination data and intraoperative findings. Implementing the "decision tree" into clinical practice facilitates patient routing, reduces operative time and blood loss, ensures the rational use of laparoscopic approaches, and creates a basis for unifying tactics in complex hepatobiliary surgery situations.

CONCLUSIONS:

1. The developed treatment and diagnostic algorithm for selecting surgical tactics, based on the "ISP-VZHP" scale and morphofunctional risk stratification, ensured a standardized and reproducible selection of the optimal intervention.
2. Implementation of the algorithm resulted in a 3.4-fold reduction in severe complications, a more than 5-fold reduction in conversions, and improved outcome predictability. The algorithm has proven its practical applicability and effectiveness in laparoscopic hepatobiliary surgery.

LITERATURE

1. Alidzhanov F.B., Khadzhibaev F.A., Gulomov F.K. Controversial issues of Mirizzi syndrome // Bulletin of emergency and reconstructive surgery. - 2018. - Vol. 3, No. 3. - P. 218-225.
2. Achilov M.T., Shonazarov I.Sh., Akhmedov G.K., Yuldashev F.Sh. Diagnostics and surgical correction of Mirizzi syndrome // Journal "Re-Health". - 2020. - No. 2-2(6). - P. 111-113.



3. Kondratyuk E.R., Mavlyutova A.N., Murynina P.V. Modern approaches to the diagnosis and treatment of choledocholithiasis // Scientific almanac of the French-Kazakh Association. – 2023. – No. 4. – P. 116–129.
4. Doukas P.G., Doukas S.G., Broder A. The role of AI models in improving the diagnosis of choledocholithiasis: a systematic review and meta-analysis // Exp Ther Med. – 2025. – Vol. 30, No. 6. – Article 221.