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EXPERIENCE IN THE INTRAOPERATIVE DIAGNOSIS AND TREATMENT OF MIRIZZI SYNDROME

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Relevance. This overview presents twenty patients treated for Mirizzi syndrome between 2013 and 2016. Surgical intervention in such cases demands high expertise and meticulous care, as intraoperative discovery of Mirizzi syndrome can significantly complicate the corrective procedure. This retrospective study aims to underscore the rarity of Mirizzi syndrome, a diagnosis that should not be overlooked, as failure to recognize this uncommon condition may result in iatrogenic postoperative complications and diminished patient quality of life

Materials and methods. This retrospective study presents 20 patients with Mirizzi syndrome diagnosed during biliary surgery at Grodno Regional Clinical Hospital (2013-2016). The group included 17 women and three men, aged 35-79 years. Clinically, 11 presented with jaundice and acute cholangitis, while eight had significant comorbidities. Preoperative imaging (ultrasound, ERCP, MRI) showed hepaticocholedochal compression and proximal duct dilation, but no definitive preoperative diagnosis was made; Mirizzi syndrome was consistently an intraoperative discovery. All patients underwent open laparotomy. Intraoperatively, dense subhepatic infiltrates and distorted biliary anatomy were typical. Type I was managed with cholecystectomy, choledocholithotomy, and external drainage. Types II and III were identified in 16 patients; preoperative imaging failed to detect these due to stone impaction mimicking Klatskin tumor. Two patients had type IV syndrome with complete destruction of the hepaticocholedochus. Postoperative complications included one non-fatal micro-myocardial infarction, localized bile leakage, and pulmonary artery thrombosis, with no mortalities. Modern modalities such as MRCP and ERCP were not used in this series but may facilitate preoperative diagnosis and reduce biliary injuries in future practice

Results and their discussion. In this study 16 patients with type II-III and two with type IV Mirizzi syndrome, all were diagnosed intraoperatively, highlighting preoperative imaging limitations. Stone impaction occasionally mimicked hilar cholangiocarcinoma (Klatskin tumor), complicating assessment and underscoring the need for a multidisciplinary approach. Given the distorted biliary anatomy and dense inflammation, laparotomy remained standard. Hepaticojejunostomy on a Roux-en-Y loop was an acceptable reconstructive technique supporting favorable recovery. The variety of surgical methods reflects the complexity of managing different Mirizzi types. In a separate study of 300 laparoscopic cholecystectomies, nine Mirizzi cases were reported; four were completed laparoscopically despite difficulty, while two required conversion due to bile duct injury or risk thereof. Another series described type I management as cholecystectomy with retention of the infundibulum adherent to the common bile duct, and type II as partial cholecystectomy with infundibular wall closure of the bile duct. No fatalities occurred in the present study. Postoperative complications-including myocardial infarction, localized bile leakage, and thromboembolism-reflect the risks of complex biliary surgery in advanced Mirizzi syndrome. These findings emphasize the importance of meticulous preoperative planning and precise surgical technique.

Conclusions. Given limited diagnostic options, surgery remains the only definitive intervention for Mirizzi syndrome, despite associated risks of bile duct injury and non-fatal postoperative complications. Future integration of modern imaging modalities such as MRCP and ERCP may further reduce the risk of serious postoperative complications and enhance patient recovery. Given the complexity of this condition, surgeons must exercise meticulous care when operating in the hepatobiliary region and possess proficiency in bile duct reconstructive techniques