



32. THE MINIMALLY INVASIVE APPROACH TO MECHANICAL JAUNDICE

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Introduction. The current issue in hepatopancreatobiliary surgery involves the diagnosis and treatment of mechanical jaundice (MJ) resulting from cholestasis, caused by inflammatory processes, tumors, and iatrogenic injuries. MJ in 35-42% is a consequence of choledocholithiasis, 71-93% due to strictures of the extrahepatic bile ducts, and tumor-related cases range from 21-90%. The treatment objective involves normalizing bile flow through decompression, The methods are dependent on etiology of MJ. Minimally invasive techniques in the initial stage prevent severe complications, creating subsequent conditions for surgical treatment.

Aim of study. To investigate the efficacy of minimally invasive methods of biliary decompression in mechanical jaundice (MJ).

Methods and materials. The study included 82 patients with mechanical jaundice (MJ) treated between 2021 and 2023. The male-to-female ratio was 43/39, with a mean age of 62.4 ± 2.7 years. Patients presented with jaundice for an average duration of 44.38 ± 11.23 days, accompanied by epigastric and right hypochondrial discomfort (64.8%), cutaneous pruritus (44.5%), and pain (52.8%). Eighteen patients experienced cholangitis. Initially, total bilirubin levels ranged from 40 to 523 $\mu\text{mol/L}$, with elevated transaminases in 67.9% of cases. The prothrombin level was low at 52.7% ($63.8 \pm 8.47\%$). As per EUS, CT, and MRI findings, the origin of jaundice was tumoral in 47.6% of cases, while the remainder resulted from biliary strictures and duodenal diverticula. Primary biliary decompression was achieved by retrograde stenting of the bile ducts in 67 patients for both malignant and benign jaundice, and in 15 patients through transparietohepatic drainage.

Results. The positive effect of biliary decompression was established in 96.4% of cases. A significant decrease in bilirubin levels was observed with retrograde drainage of the bile ducts compared to transparietohepatic drainage ($148.26 \pm 48.52 \mu\text{mol/L} \rightarrow 45.88 \pm 19.33$ vs. $137.43 \pm 36.22 \rightarrow 61.32 \pm 24.35 \mu\text{mol/L}$). Complications were recorded in 28.4% of cases, primarily associated with transparietohepatic decompression (62.4%). The mortality rate was 5.6%. The study indicates that patients with mechanical jaundice resulting from drainage procedures have real chances of reducing bilirubin levels, with each method being determined by the etiology of jaundice.

Conclusion. Biliary decompression in mechanical jaundice (MJ) represents the primary intention method in preventing complications, especially hepatic insufficiency. Transduodenal stenting shows a lower frequency of complications compared to transparietohepatic drainage.