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Endoscopic Biliary Drainage for Hilar Obstruction: Further Evidence But Still A Long Way To Go

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See "Endoscopic Stenting for Malignant Biliary Obstruction: Results of a Nationwide Experience" by Jeanne Lubbe, Gabriel Sandblom, Urban Arnelo, et al., on page 713-721.

Endoscopic transpapillary biliary drainage is the standard treatment for malignant biliary obstruction (MBO); however, the specific approach differs considerably between distal and hilar MBO. While transpapillary metal stent placement is often the standard treatment in cases with resectable and unresectable distal MBO,[1] controversy remains regarding the management of hilar MBO. The European Society of Gastrointestinal Endoscopy clinical guideline[2] suggests endoscopic transpapillary biliary drainage for extrahepatic biliary stricture, and percutaneous or combined percutaneous and endoscopic transpapillary biliary drainage for intrahepatic biliary stricture. Although endoscopic bilateral metal stent placement is superior to unilateral metal stent placement in achieving stent patency,[3] various biliary drainage techniques are still employed in clinical practice, such as plastic stents and covered metal stents, depending on various factors such as patient conditions, local expertise, and physician preferences. While percutaneous transhepatic biliary drainage appears superior to endoscopic transpapillary biliary drainage in patients with advanced hilar MBO,[4] endoscopic biliary drainage is often selected to avoid an indwelling percutaneous drainage tube. Furthermore, endoscopic ultrasonography-guided biliary drainage has been increasingly reported to overcome technical and clinical hurdles encountered during transpapillary biliary drainage in complex hilar MBO.[5,6]

Thus, in contrast to distal MBO, management of hilar MBO is far from standardized, and the clinical outcomes of endoscopic biliary drainage are worse in hilar MBO than in distal MBO; however, there is little available information on direct comparisons. In this issue of *Clinical Endoscopy*, Lubbe et al.[7] compared the clinical outcomes of MBO depending on the stricture location using a nationwide prospective endoscopic retrograde cholangiopancreatography database. This study highlighted higher rates of early adverse events (17.2% vs. 12.0%) and reinterventions (73.4% vs. 55.9% at 6 months) in hilar MBO than in distal MBO. Furthermore, among hilar MBO, reintervention rates at 6 months were even higher in intrahepatic strictures (>80%) than in extrahepatic strictures (70–80%).

In addition to the location of the MBO as a prognostic factor for endoscopic biliary drainage, this study illustrated important findings regarding both distal and hilar MBO; more than half of patients required reintervention within 6 months of the initial biliary stent placement. This was uncommon in palliative biliary drainage for unresectable MBO 10–20 years ago. However, the advent of chemotherapy and improvement of supportive care prolong survival even in patients with intractable pancreaticobiliary malignancy, and it is now difficult to palliate MBO in a single session of endoscopic biliary drainage. While we still need to seek prolongation of stent patency in the initial drainage, we also need to consider the safety and effectiveness of reinterventions after failure of the initial drainage.

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The advantage of this nationwide prospective cohort study is its large sample size; however, the lack of detailed data hinders the clarification of the appropriate treatment strategy for hilar MBO, such as stenting across vs. above the papilla and bilateral vs. unilateral stenting. This study clarified technical and clinical hurdles in the management of hilar MBO, and further research should focus on unanswered clinical questions. Randomized controlled trials are necessary to accumulate high-level evidence in this area, but a "one-size-fits-all" strategy does not exist in complex hilar MBOs. We need to establish an individualized treatment algorithm based on various anatomies and patient conditions, and a large registry with focused and detailed data is warranted to answer various clinical questions.

Conflicts of Interest

The authors have no potential conflicts of interest.

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