Endoscopic Papillary Large Balloon Dilation: It Is about Time We Did for a Whopper

Seok Jeong^{*,†} and Don Haeng Lee^{*,†,‡}

^{*}Digestive Disease Center, Department of Internal Medicine, Inha University School of Medicine, [†]The National Center of Efficacy Evaluation for the Development of Health Products Targeting Digestive Disorders (NCEED), and [‡]Utah-Inha DDS & Advanced Therapeutics Research Center, Incheon, Korea

See "Which Is the Better Treatment for the Removal of Large Biliary Stones? Endoscopic Papillary Large Balloon Dilation versus Endoscopic Sphincterotomy" by Woo Hyun Paik, et al, on page 438, Vol. 8, No. 4, 2014

Endoscopic papillary large balloon dilation (EPLBD) is a procedure which makes major duodenal papilla orifice wider than stone using 12- to 20-mm diameter of dilation balloon catheter to facilitate stone retrieval in treatment of large common bile duct (CBD) stone 1 cm or more. Theoretically this procedure could remove the large stone effectively without needs of endoscopic mechanical lithotripsy (EML) to shorten the procedure time and lessen the risk of procedure-related complication.

It has been introduced in the manner of an EPLBD combined with preceding endoscopic sphincterotomy (EST) for treatment of large choledocholithiasis in 2003.¹ Since then, many relevant clinical studies including several randomized controlled trials have been implemented.^{2,3} However, there is debate yet whether EPLBD will be an alternative method to EST.

First, considering safety of EPLBD in large CBD stone, overall adverse event rate of EPLBD with EST was reported to be significantly lower than that of EST (odds ratio [OR], 1.60; $p < 0.001$).⁴ Pancreatitis developed in 3.9% (2.6% to 6.4%) of patients who underwent EPLBD with EST. And the rate of pancreatitis after EPLBD with EST was lower than that of EST (OR, 1.80; $p = 0.006$).⁴ Meanwhile, the bleeding rate of EPLBD with EST was suggested to be significantly lower than that of EST alone in a meta-analysis (OR, 0.15; $p = 0.002$).² The higher rate of bleeding is limited in EPLBD with large EST.⁴ The perforation rate of EPLBD with EST was 0.6%, and similar to that of EST.⁵ In the current study, Paik *et al.*⁶ reported that overall early complication rate of EPLBD with minor EST was not significantly different from that of EST, and bleeding and post-endoscopic

retrograde cholangiopancreatography (ERCP) pancreatitis were not significantly different in both groups.

The session of repeated ERCPs could be significantly curtailed, and the use of EML was reduced, and the mean amount of costs for the complete stone retrieval for each patient was lower in EPLBD group compared to EST group in this study.⁶ Therefore, EPLBD with EST was suggested to be more effective than EST especially in terms of cost-effectiveness.³ Considering long-term outcome, this study reported that there was no significant difference of cumulative incidence of the CBD stone recurrence between EPLBD and EST. They showed that EPLBD with minor EST was not superior to EST for prevention of the stone recurrence.

In the current issue of *Gut and Liver*, Paik *et al.*⁶ reported retrospective long-term follow-up data about comparison between outcomes of EPLBD with EST and EST alone and did not define the stone diameter in the inclusion criteria for the study. There is a selection bias in the study, and the case volume is small. But the comparative data about cost-effectiveness for complete removal of large CBD stone between the two procedures was suggested even though the study results were inconclusive yet.

In conclusion, as the efficacy, and short and long-term safety of EPLBD is similar to that of EST, what EPLBD could be better than EST in terms of cost-effectiveness is meaningful and important in clinical practice. Now EPLBD seem to be about time we performed practically for large CBD stone although of course, further collection of large-scaled, prospective data is needed to come to the conclusion that EPLBD is the best method in treatment of large CBD stones.

Correspondence to: Don Haeng Lee

Department of Internal Medicine, Inha University Hospital, Inha University School of Medicine, 27 Inhang-ro, Jung-gu, Incheon 400-711, Korea
Tel: +82-32-890-2548, Fax: +82-32-890-2549, E-mail: LDH@inha.ac.kr

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CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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