

## 論 文 要 旨

## Factors Associated with the Technical Success of Bilateral Endoscopic Metallic Stenting with Partial Stent-In-Stent Placement in Patients with Malignant Hilar Biliary Obstruction

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Background. Bilateral biliary drainage decreases the risk of cholangitis, but bilateral endoscopic metallic stenting is technically challenging. Aim. We retrospectively evaluated the factors associated with successful bilateral self-expanding metal stent (SEMS) placement using the partial stent-in-stent (PSIS) method for malignant hilar biliary obstruction and also assessed the safety and efficacy of this technique. Methods. From April 2010 to February 2016, 47 consecutive patients (mean age,  $73.0 \pm 8.6$  years; 32 males and 15 females) underwent PSIS placement for malignant hilar biliary obstruction in our hospital. The technical success of PSIS, clinical response, and complications were investigated. Factors associated with the technical success of PSIS were assessed. Using a propensity score-matched analysis, we compared the procedure time, clinical response, complications, stent patency, and survival time in 17 matched patients treated with bilateral SEMS placement using a SEMS delivery system of  $<6.0$  or  $\geq 6.0$  Fr. Results. The technical success rate was 77%. The clinical response rate was 91%, and the complication rate was 26%. Regarding complications, pancreatitis occurred in 5 patients (11%), cholangitis in 6 (13%), and cholecystitis in 1 (2%). A multiple logistic regression analysis identified the use of a SEMS with a delivery system  $< 6.0$  Fr as a factor associated with technical success ( $P = 0.033$ ; odds ratio, 10.769; 95% confidence interval, 1.205-96.212). In the 17 matched patients assigned according to the SEMS delivery system size, the procedure time was significantly shorter in those with a delivery system size  $< 6.0$  Fr than in those with  $\geq 6.0$  Fr ( $P < 0.01$ ). There were no significant differences in the clinical response, complication rate, stent patency, or survival time between the two groups. Conclusion. Using a delivery system  $< 6.0$  Fr in size helped improve the technical success and reduced the procedure time for the placement of a SEMS by the PSIS method.