Does Endoscopic Large Balloon Sphincteroplasty Lower the Recurrence Rate with Prior Sphincterosomy?

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Introduction: The rate of recurrent common bile duct (CBD) stones after CBD stone removal with endoscopic sphincterotomy (EST) is 5.8~24%. Endoscopic papillary large balloon dilation (EPLBD) could be used for the removal of recurrent CBD stones. We investigated the role of EPLBD in lowering the recurrence rate in patients with CBD stones.

Methods: Between 2001 and 2009, 577 patients with CBD stones underwent EST for bile duct stones at Kyung Hee Medical center, Seoul, Korea. CBD stones recurred at least once in 56 patients (28 male patients, median 65.5±12.9 years of age) a median of 23.1±15.65 months after EST. The first recurrence rate for CBD stones was 9.7% (56 of 577). For the purpose of removing the recurrent CBD stone in 56 patients, 34 patients were treated with EPLBD and 22 patients were treated with EST. We compared the recurrence rates of CBD stones between the EPLBD group and the EST group.

Results: Among 56 patients with a first recurrence of CBD stones, 11 patients (19.6%) had a second recurrence. The median duration of recurrence was 24.7±12.0 months. The recurrence rate of CBD stones was 8.8% (3 of 34) in the EPLBD group and 36.3% (8 of 22) in the EST group. These rates were significantly different in multivariate analysis (logistic regression analysis; p-value=0.019). There were no significant differences between two groups with regard to other risk factors such as CBD diameter, diverticulum, or cholecystectomy history. In the EPLBD group, there was no significant complication such as massive bleeding or post ERCP pancreatitis. During the follow-up period, the cumulative rate for second recurrent CBD stones was also lower in the EPLBD treatment group compared to that in the EST group (Kaplan-Meier’s method; p-value=0.028).

Conclusions: The EPLBD lowered the second recurrence rate of CBD stones in patients who were previously treated for CBD stones with EST. Therefore, EPLBD is an effective and safe treatment for recurrent CBD stones after EST.

Key Words: Endoscopic papillary balloon dilatation, Common bile duct stones

번역결과
내시경 거대풍선 유두성형술은 과거 유두부 절개술 시행한 총담관석 환자에서 재발율을 감소시키는가?
조창현, 동석호, 황보영, 장재영, 김효종, 장영운, 장린
경희대학교 의과대학 내과학과

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