Temporary Placement of Fully Covered Self-Expandable Metal Stents (CSEMS) in Benign Biliary Stricture

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Background: Benign biliary strictures (BBS) have been endoscopically managed with placement of plastic stent. The data on fully covered self expandable metal stents (CSEMS) in patients with BBS were still few in Korea.

Method: Sixty three patients (39 men, 61.9%) with BBS had placement of CSEMS between December 2004 and July 2010. Efficacy and safety were evaluated retrospectively. Patients were considered to have resolution if they had evidence of stricture resolution on cholangiogram and an inflated retrieval balloon was easily passed through the strictures at removal of CSEMS.

Results: The median time of CSEMS placement was 2.9 months (interquartile range [IQR] 2.1~4.1). Patients were followed up for a median of 7.4 months (IQR 2.6~15.4) after CSEMS removal. Resolution rate of the BBS was confirmed in 51 of 63 (81%) who had the CSEMS removed. After CSEMS removal, 6 of 51 patients (11.8%) experienced symptomatic recurrent stricture and repeat stenting were performed. When a breakdown by etiology of stricture was performed, 14 of 18 patients (77.8%) with chronic pancreatitis, 19 of 24 patients (79.2%) with recurrent cholangitis, 6 of 7 patients (85.7%) with surgical procedure and 12/14 (85.7%) with BBS from other etiology had resolution at the removal of CSEMS. Complications directed to stent therapy were occurred in 19 patients (30%) including post-ERCP pancreatitis (n=6), cholecystitis (n=1), proximal migration (n=2), distal migration (n=6), occlusion (n=4).

Conclusions: Temporary CSEMS placement in patients with BBS offers a potential alternative to plastic stenting. However, because of the significant complications and modest resolution rates, their potential benefits and risks should be evaluated in further investigations.

Key Words: Stent, Bile duct obstruction, Endoscopic retrograde cholangiopancreatography