



Service Priorities and Programmes
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Endoscopic papillary balloon dilatation for removal of difficult CBD stones during ERCP – Initial experience in QEH

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Introduction

Endoscopic papillary balloon dilatation (EPBD) was increasingly being used for the removal of difficult CBD stones during ERCP.

Objectives

To evaluate the efficacy and safety of endoscopic papillary balloon dilatation (EPBD) as an adjunct to sphincterotomy for removal of difficult CBD stones during ERCP.

Methodology

A retrospective descriptive analysis was conducted over a period of 5.5 years from December 2006 to September 2012. All patients with difficult-to-remove CBD stones who underwent EPBD were analyzed. Endoscopic balloon dilatation was performed after standard sphincterotomy by using the medium-sized (10 - 15mm) Controlled Radial Expansion (CRE) balloons.

Result

A total of 22 patients who underwent endoscopic sphincteroplasty were analyzed. There were 12 (54.5%) males and the age of the study population ranged from 59 to 89 years (mean 77.5 +/- 9.2 years). The indications for sphincteroplasty included: eccentric ampullary position (36.4%), scarred ampulla (27.3%), peri-ampullary diverticulum (13.6%), limited space for further sphincterotomy (9.1%), inconspicuous ampullary margin (9.1%) and Billroth II partial gastrectomy (4.5%). The size of the stone ranged from 13 to 43 mm (mean 22 +/- 8 mm). The sizes of sphincteroplasty balloons used were 12mm (77.3%), 10mm (9.1%), 11mm (4.5%), 13mm (4.5%) and 15mm (4.5%). All except one patient had sphincterotomy prior to EPBD. Stones were removed completely in 17 (77.3%) patients and partially in 5 (22.7%) patients within the same session. The reasons for incomplete stone removal included suboptimal sphincteroplasty result, prolonged procedure time, failure of basket to wrap around an impacted stone (34mm in diameter) and the presence of residual muddy stones. Concerning complications, 1 (4.5%) patient developed mild post-ERCP pancreatitis (the patient without prior sphincterotomy) and 4 (18.2%) patients had mild self-limiting bleeding. None of the patients had severe pancreatitis, major bleeding, perforation or

death related to the procedure. Conclusion Medium-sized endoscopic papillary balloon sphincteroplasty along with endoscopic sphincterotomy is an effective and safe technique for removal of difficult CBD stones. It allows complete stone clearance within the same session and obviates the need for repeated endoscopic interventions.