

**UTILITY OF DOUBLE GUIDEWIRE TECHNIQUE IN DIFFICULT BILIARY CANNULATION:  
EXPERIENCE FROM A SINGLE TERTIARY HOSPITAL**

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**SIGNIFICANCE:** Double guidewire technique (DGT) has been performed with promising results in cases of difficult biliary cannulation. However, recent published studies on DGT have conflicting results. This study intends to report our experience in utilizing DGT in endoscopic retrograde cholangiopancreatography (ERCP) with difficult biliary cannulation and determine its rate of post-ERCP pancreatitis (PEP).

**METHODS:** A retrospective database review of 8-year duration identified 1,597 patients with naïve papilla who undergone ERCP. The standard biliary cannulation method used was single guidewire technique (SGT). In difficult cannulation where there is persistent pancreatic duct cannulation, double guidewire technique was utilized. Precut papillotomy, rendezvous technique, and fistulotomy were employed when DGT failed or pancreatic duct cannulation was not previously achieved. The main outcome investigated was successful biliary cannulation and rate of PEP.

**RESULTS:** Biliary cannulation using SGT was successful in 89.98% (1437/1597). Out of the 160 failed SGT, 129 underwent DGT with success rate of 91.47% (118/129). Of the 11 patients to whom DGT was not successful, precut papillotomy, fistulotomy and rendezvous techniques were employed having a success rate of 72.72% (8/11). The overall biliary cannulation rate increased from 89.98% to 97.37% using DGT as second line from SGT. Rate of PEP in DGT is 6.38%.

**CONCLUSION:** SGT can be used as a standard method having a high success rate in biliary cannulation. Cannulation rate can further increase with the utilization of DGT for those who have failed SGT. Other advanced techniques may be used as a salvage procedure in cases of unsuccessful DGT. PEP rate is satisfactory.

**KEYWORDS:** Retrospective, Case-Control, Endoscopic Retrograde Cholangiopancreatography, Difficult Biliary Cannulation, Double Guidewire Technique