The Outcome of Non-surgical Management in Post-surgical Bile Duct Injury

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Background and Aims: Post-surgical bile duct injury (BDI) is the predominant cause of morbidity in patients undergoing hepatobiliary operations. However, proper management of these complications has not been fully elucidated. The aims of the study were to find out the outcome of non-surgical interventions in patients with post-surgical BDI and to determine the proper management of BDI.

Patients and Methods: In two tertiary referral centers, seventy patients who had been initially managed for post-surgical BDI at our institutes were enrolled. All eligible patients were managed by endoscopic and/or percutaneous interventions. Patients who were diagnosed at malignancies were excluded.

Results: Thirty two patients had bile leak only (46%) and 29 patients had biliary stricture only (41%). 9 patients had both biliary stricture and leak. Overall success rate in patients with bile leak only was 93.8% (30/32), 75.0% (21/28) in biliary stricture only and 33.3% (3/9) in both bile leak and stricture (p=0.005). When overall success rate was compared between two groups (patients with bile leak and stricture vs. patients with bile leak or stricture), the former group had lower success rate than the latter (33.3% vs. 85.0%, respectively, p=0.003). Patients with biliary stricture (with/without bile leak) were more frequently experienced intervention-related complications than patients with bile leak only (31.6% vs. 9.4%, respectively, p=0.052). During a mean follow up of 1.5 years, 2 of 21 patients with biliary stricture were relapsed, however, there was no case of relapse in bile leak group.

Conclusions: Non-surgical management could be regarded as initial treatment of choice in patients with BDI, especially bile leak only or stricture only. However, patients with leak and stricture might be initially considered as candidates of surgical management.