Is necessary ductoplasty during reconstruction of two adjacent bile duct in right lobe living donor liver transplantation? ; cluster with mucosal eversion technique.

Eun Kyoung Jwa, Joo Dong Kim, Tae Yoon Kim, Dong Lak Choi.
Division of hepatobiliary pancreas surgery and abdominal organ transplantation, Department of Surgery, Daegu Catholic University College of Medicine, Daegu, Korea

INTRODUCTION

Biliary anastomosis stricture (BAS) is still major concerns especially for living donor liver transplantation (LDLT). Recent studies have described multiple duct and multiple anastomoses as risk factor for biliary complications. For multiple bile duct during LDLT, various surgical techniques with multiple separate with or unification ductoplasty have been introduced. Above all, most surgeon have performed unification ductoplasty for nearby two bile duct in LDLT. However, ductoplasty could cause hemobilia and is difficult to perform in cases with duct size discrepancy The aim of this study is to introduce modified biliary reconstruction technique for two adjacent bile duct and its effects on biliary complication compared to ductoplasty.

METHODS

We compared clinical outcomes with two biliary reconstruction techniques through retrospective review LDLT from January 2013 to April 2017.

41 recipients who underwent LDLT using right lobe grafts with two adjacent bile duct at our institution

- group 1 (n=20) received unification ductoplasty
- group 2 (n=21) received new cluster with mucosal eversion technique (Fig.1).

RESULTS

Biliary complication including bile leakage occurred in 4/20 patients in group I (20%) and in 3/21 patients in group 2(14.3%) Moreover, the incidence of BAS in group 2 was lower than that in group 1 (15.0% vs 4.8%) even though there is no significant difference (p=0.269). The 1-year and 3-year BAS free survival rates 90% and 83.1% in group 1 and 95.2 % and 95.2 % in group 2 (Fig 3.)

CONCLUSION

In conclusion, cluster with mucosal eversion technique could be a useful reconstruction method for two adjacent bile duct in LDLT and good alternative to ductoplasty.