Topic : Biliary & Pancreas

WRAPPING OF PJ ANASTOMOSIS WITH NON-VASCULARIZED FALCIFORM LIGAMENT PATCH AND SEPARATE WRAPPING OF GDA STUMP WITH VASCULARIZED FALCIFORM LIGAMENT FLAP IN PANCREATODUODENECTOMY

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Background : Postoperative pancreatic fistula (POPF) is a serious complication that can occur after pancreatoduodenectomy (PD). In particular, pseudoaneurysm occurring in gastroduodenal artery (GDA) stump is a disastrous secondary complication of POPF that can cause fatal bleeding. As a protective surgical technique, falciform ligament (FL) wrapping has been used with two main goals: one is to prevent leakage of the pancreato-digestive tract anastomosis, and the other is to prevent the skeletonized artery from forming pseudoaneurysm by the activated pancreatic juice.

Methods : The PJ anastomosis is reinforced with a non-vascularized falciform ligament patch (instead of the conventional vascularized falciform ligament flap) and the GDA stump was wrapped by a vascularized falciform ligament flap.

Results : A non-vascularized FL patch is made of the membranous portion of the FL. And the patch, which is approximately 15 x 1.5 cm in size, is wrapped around the pancreas stump as if it were its own peritoneum (like Neoveil) and incorporated into the PJ anastomosis. In particular, when using the modified Blumgart technique, the anastomosis can be performed more easily by using a bidirectional barbed suture in an open as well as minimally invasive surgery. A vascularized FL flap is made of the fatty portion of the FL including the ligamentum teres. The flap wraps the proximal and distal hepatic arteries of the GDA stump to isolate them from any leaked pancreatic juice.

Conclusions : The authors report here a surgical technique of both the reinforcement of PJ anastomosis and wrapping of the GDA stump with falciform ligament, along with a video.

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