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CONTINUES LOCKED EVERSION SUTURE FOR ARTERIAL ANASTOMOSIS IN ORTHOTOPIC LIVER TRANSPLANTATION

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Background : To explore the advantages of continuous locked eversion suture for arterial anastomosis in orthotopic liver transplantation.

Methods : From January to February 2022, a series of 10 consecutive patients underwent orthotopic liver transplantation in our hospital. During the operation, the artery anastomosis was performed using 7- 0 Prolene with two stay sutures. The arterial patch was prepared at the branch of the gastroduodenal artery and proper hepatic artery. Regarding the donor artery, an arterial patch was prepared at the splenic branch artery and the common hepatic artery. The diameter of each arterial patch was accurately measured. The procedure of arterial anastomosis and the presence of anastomotic leakage immediately after the anastomosis were carefully recorded. Moreover, the incidence of hepatic artery complications was closely followed up.

Results : The prepared arterial patch could increase the diameter by approximately 1-2mm. The average anastomotic diameter of the recipient artery measured around 4.6mm, while that of the donor artery was about 6mm. The maximum discrepancy in the diameter between the donor and recipient arteries for anastomosis was 3mm (with the donor artery being 6mm and the recipient artery 3mm). The average time taken for anastomosis was 9 minutes. There was one case of anastomotic leakage, which was resolved by applying supplementary sutures. During the 5-month follow-up period, no complications such as hepatic artery thrombosis, hepatic artery stenosis, or hepatic artery pseudoaneurysm were observed.

Conclusions : Continuous locked eversion suture represents a rapid, stable, secure, and efficient approach for hepatic artery anastomosis during orthotopic liver transplantation.

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