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No Disclosure

Does tying first during hepatic artery reconstruction help prevent stenosis?

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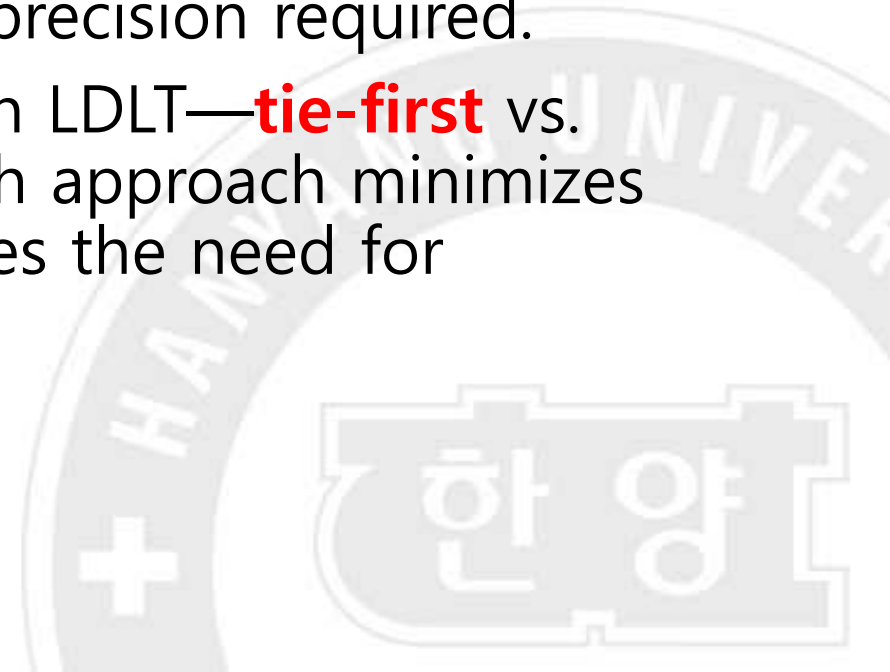


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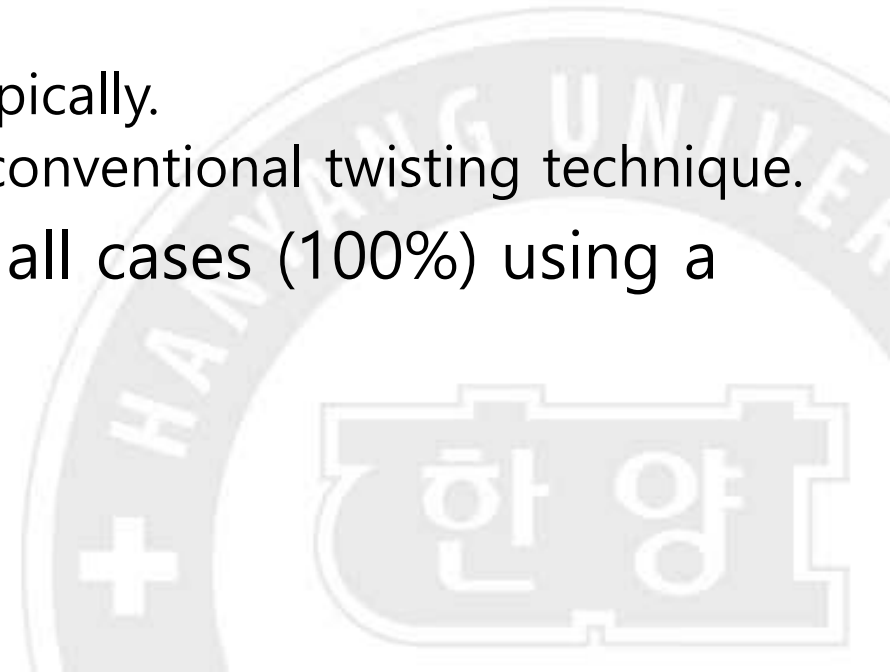
Background

- **Living Donor Liver Transplantation (LDLT)** is vital for end-stage liver disease, and hepatic artery reconstruction (HAR) is crucial for graft survival.
- Hepatic artery anastomosis is technically demanding due to the small diameter of the artery and the precision required.
- This study evaluates two techniques in LDLT—**tie-first** vs. **reperfusion-first**—to determine which approach minimizes complications like stenosis and reduces the need for intraoperative revisions.



Methods

- **Retrospective analysis** of 24 living donor liver transplants (LDLT) performed at Hanyang University Hospital between **January 2019 and October 2023**.
- Patients
 - 24 LDLT patients.
 - All donor surgeries performed laparoscopically.
 - Hepatic artery reconstruction using the conventional twisting technique.
- **Microanastomosis** was performed in all cases (100%) using a **surgical loupe**.



Results

- Patient Groups:
 - Tie-first group: 11 cases (45.8%).
 - Reperfusion-first group: 13 cases (54.2%).
- Hepatic Artery Diameter (**p=0.17**)
 - Tie-first: 2.09 ± 0.3 mm.
 - Reperfusion-first: 1.92 ± 0.27 mm.
- Intraoperative Revisions (**p=0.02**)
 - Tie-first group: 1 case (9.1%).
 - Reperfusion-first group: 7 cases (53.8%).



Conclusion

- The **tie-first group** had significantly fewer intraoperative revisions compared to the **reperfusion-first group** (9.1% vs. 53.8%, $p=0.02$).
- No significant difference in the diameter of the donor hepatic artery between the two groups ($p=0.17$).
- The **tie-first technique** shows clear advantages in reducing complications during hepatic artery reconstruction, particularly **stenosis** and the need for revisions.
- For surgeons with limited experience in hepatic artery anastomosis, adopting the tie-first method is recommended to minimize risks and improve patient outcomes in LDLT.

Thank you



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