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ASO Author Reflections: Laparoscopic Retrosternal Route Creation after MIE
is Associated with Good Reconstructed Conduit Function without Increasing
Risk of Surgical Complications

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Past

The posterior mediastinal or retrosternal route is frequently employed for gastric conduit reconstruction after esophagectomy, each with its unique advantages and disadvantages. The posterior mediastinal route is characterized by a relatively straightforward reconstruction procedure and physiologically normal food flow, but poses risks such as severe mediastinitis,¹ gastro-tracheal fistula,² and postoperative hiatal hernia.³ In contrast, the retrosternal route circumvents such severe complications, albeit at the expense of dissection in the retrosternal space and the risk of pleural injury and hemorrhage during the process.

Previously, we reported on a novel laparoscopic retrosternal route creation (LRRC) technique to minimize these risks and the invasiveness of route creation.⁴ However, it remains unclear whether LRRC reconstruction is non-inferior to posterior mediastinal reconstruction in terms of postoperative outcomes and reconstructed gastric conduit function.

Present

Our study results demonstrate that there were no significant differences in postoperative complications, including anastomotic leakage, between the retrosternal route reconstruction with LRRC and the posterior mediastinal reconstruction cohorts. However, the posterior mediastinal group had a higher incidence of gastro-tracheal fistula and postoperative hiatal hernia, which were

avoided in the LRRC group. Notably, the LRRC group exhibited significantly better anastomotic reflux esophagitis outcomes on endoscopic evaluation one year postoperatively, despite no significant differences in anastomotic stenosis rates between the groups. Based on these results, we conclude that retrosternal route reconstruction after MIE using LRRC can be performed safely and with outcomes comparable to those of posterior mediastinal route reconstruction, and may result in favorable postoperative reconstructive gastric conduit function.⁵

Future

This study presents a relatively small number of cases from a single institution. Therefore, to generalize the results, further research is necessary in the form of larger and more multicenter studies.

Additionally, the relationship between the chosen reconstructive route and long-term prognosis requires further investigation and remains an important issue for future studies.

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2 None.

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