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Commentary: Total lung sparing for low-grade bronchial malignancies: Technically feasible, but still needs long-term survival data

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Primary bronchial malignancies are relatively rare and include a variety of pathologic types. An important component of minimally invasive thoracic surgery is to remove the tumors completely while also spare normal lung tissue as much as possible.¹ This is especially the case with low-grade bronchial malignancies that require minimal resection margins to be curative. In 1955, Paulson and Shaw² made the first significant report on the clinical application of lung-sparing bronchial sleeve resections. Since then, it has become an attractive technique for patients with low-grade bronchial malignancies.

Chen and colleagues³ performed a retrospective analysis of 30 patients who underwent left secondary carinal resection and reconstruction with pulmonary parenchymal preservation for low-grade bronchial malignancies, including adenoid cystic carcinoma, mucoepidermoid carcinoma, and carcinoid tumors. The authors present impressive short-term outcomes. There was no anastomotic defect or operative mortality. Only 4 patients had postoperative complications that were successfully handled. Given the rarity of this technically demanding procedure, this study represents a large series. The pictures and video of surgical



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procedures are well done, and can provide useful technical guidance.

Nevertheless, several issues need to be considered when interpreting these results. First, the indications for this procedure need to be more specific. Patients in this study were generally very young, with a median age of 39 years. This partly contributes to the excellent postoperative outcomes. Second, there is a lack of control group. Other treatment modalities, such as endoscopic treatment may also be suitable for selected patients with low-grade bronchial malignancies. Last and most importantly, we still need long-term survival data to further justify its application. The resected margins were positive in 27% of patients, which might jeopardize long-term survival.

This study demonstrates left secondary carinal resection and reconstruction for selected patients with low-grade bronchial malignancies is technically feasible. Long-term follow-up is still needed to investigate the oncologic therapeutic effect.

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