

INTRODUCTION

The value of multidisciplinary diagnosis and treatment (MDT) for lung cancer has been widely recognized, particularly for unresectable advanced lung cancer. However, traditional MDT are often limited to single consultation or ad hoc meetings and lack phased goals and dynamic decision-making. As the first institution-based multidisciplinary integrated lung cancer center in China, the Lung Cancer Center of West China Hospital, Sichuan University, has implemented an innovative, goal-oriented four-stage MDT framework for patients with clinically assessed unresectable stage III disease. This approach aims to precisely convert "unresectable" tumors to "resectable" status and, ultimately, improve five-year survival rates and quality of life.

METHODS

The MDT team at the Lung Cancer Center comprises specialists from thoracic surgery, medical oncology, radiation oncology, respiratory medicine, rehabilitation medicine, nutrition, and traditional Chinese medicine. For each patient, from enrollment to 12 months postoperatively, the MDT team holds four staged case conferences with distinct objectives: screening, decision-making, management, and planning. Recommendations are reached by consensus; when disagreement persists, a majority vote of attending specialists determines the final decision.

Enrollment screening: Assess eligibility and conversion potential, confirm TNM staging, and define the overall treatment strategy including the initial induction therapy plan.

Timing decision: Reassess surgical indications and risks after two cycles of induction therapy to determine feasibility of conversion to resection. For patients judged operable, evaluate the impact of treatment-related adverse events on surgical timing; for those still inoperable, revise the induction regimen promptly.

Perioperative support: Coordinate comprehensive perioperative care, including anesthesia planning, surgical and rehabilitation protocols, adjunctive traditional Chinese medicine interventions, and strategies for mitigating intraoperative and immediate postoperative risks.

Postoperative planning: Review pathological results to guide individualized adjuvant therapy and establish long-term rehabilitation and follow-up plans.

DISCUSSION AND CONCLUSION

Actionable Take Away Message

This study demonstrates that a goal-directed, four-stage MDT model implemented within an institution-based lung cancer center provides meaningful clinical benefit for conversion therapy in patients with clinically unresectable stage III NSCLC. The model achieved a high conversion surgery rate, a high R0 resection rate, and a high proportion of minimally invasive procedures, while maintaining a low incidence of perioperative complications and overall treatment safety.

Future Direction for Research

Its defining characteristics including explicit objectives, structured procedures, and standardized implementation, establish a practical framework for conversion therapy in unresectable NSCLC. The model is amenable to wider dissemination and may serve as a reference for advancing standardized, multidisciplinary, whole-course management of lung cancer.

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RESULTS

