

THERAPY OR EARLY STAGE LUNG CANCER: MINIMALLY INVASIVE SURGERY

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Lung cancer is one of the leading cause of cancer-related deaths in men and women worldwide.

Recent innovations and progress in diagnosis, staging and therapy of early stage non-small cell lung cancer (NSCLC) have changed the paradigm for surgical management of these patients.

The main principles of surgery in early stage disease remains complete radical resection of the primary tumor and, in order to obtain full surgical staging, a systematic mediastinal lymphadenectomy.

The current evidence indicates that VATS anatomic resections (lobectomy or segmentectomy) as a minimal invasive surgical approach for early-stage NSCLC is associated with fewer postoperative complications than open lobectomy. Current data strongly also suggest oncological equivalence of VATS versus open anatomic resections for patients with early stage NSCLC. In recent reports, the 5-year survival for VATS lobectomy in stage IA NSCLC is near 90%, similar to that for open lobectomy. VATS lobectomy for early-stage NSCLC might be associated with less negative biological impact than open lobectomy. Alternatively, to the VATS approach, robotic assisted thoracic surgery (RATS) has emerged in some centers worldwide. Especially in anatomic segmentectomies, RATS seem to be more accurate than VATS.

In the recent years, there is a tendency towards less invasive and lung sparing resections such as sublobar resections for radiological non-invasive tumors. Numerous publications are suggesting that sublobar resection for early lung cancers may be adequate surgical treatment.

This presentation reviews current status of the role of minimally invasive surgery in lung cancer therapy, provides an update on the recent developments of surgical techniques and summarizes the role of sublobar resections in very early stage disease.