Resection of pleural implants in patients with lung cancer should remain the exception rather than the rule

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The eighth edition of the American Joint Commission on Cancer TNM classification for lung cancer classifies pleural implants or effusion as M1a disease.¹ Pleural implants harbor a grim prognosis, with very few patients surviving 5 years after diagnosis.² Several investigators have published reports regarding the potential survival advantage of resecting oligometastatic disease in patients with non-small cell lung carcinoma (NSCLC),^{3,4} and there have been a few reports purporting survival advantages when pleural implants are resected.⁵⁻⁷ Several of these reports precede the seventh edition of the American Joint Commission on Cancer classifications for lung cancer, which reclassified pleural implants as M1a disease rather than as T4 disease,^{8,9} and all of the published case series included only patients found to have pleural implants during definitive surgery while excluding patients diagnosed with pleural implants preoperatively. All of these studies are single-institution studies fraught with substantial selection bias, and applying their conclusions to day-to-day clinical practice is difficult. Most surgeons will not resect either the primary tumor or the pleural implants in patients with stage M1a NSCLC, preferring to treat them with other modalities.

Li and colleagues¹⁰ revisit the topic of resection in patients with pleural implants. They retrospectively review their experience over 8 years with patients with pleural metastases detected at surgery. They identified 43 patients with pleural implants that were found during definitive, minimally invasive, video-assisted thoracoscopic surgery (VATS) resection for NSCLC. The majority of patients were nonsmokers (74%) and women (63%), and their cancers were clinically classified as T1 (53%) or N0 (69%) before surgery. In 30 patients, the pleural implants were resected together with the primary tumor. In the remaining 13 patients, the VATS resection was aborted, and only a pleural biopsy was performed. Three-year progression-free survival and overall survival for the whole cohort were

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Central Message

Although some encouraging survival data have been presented, resection of non-small cell lung cancer and pleural implants should not be performed routinely given the advances in medical therapies.

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quite reasonable at 32.5% and 69.2%, respectively. Progression-free survival was better in the resection group than in the group with aborted resections (44.5% vs 0% at 3 years). Overall survival was also better in the resection group (64 months vs 35 months). As in previous studies, there are clear selection biases in the current study. Patients who underwent resection had lower T classification and were more likely to have limited pleural disease. The choice of procedure was entirely up to the surgeon, and it is logical to assume that surgeons were more reluctant to complete the planned VATS resection in patients with more advanced pleural disease. Finally, it is hard to assess whether the good results in the resection group were due to resection of the primary tumor and the pleural implants, or due to more favorable tumor biology.

There is no question that the field of immunotherapy for advanced lung cancer (and all cancers) will continue to evolve. Recent work on monoclonal antibodies that block the programmed death ligand 1 in patients with locally advanced NSCLC shows promising results.¹¹ In light of advances in medical therapy, should thoracic surgeons routinely resect NSCLC with pleural implants? I believe the evidence is weak to justify routine resection. Potentially, in patients with very localized pleural disease and a good risk profile, a surgeon may be justified in completing

resection of the primary tumor and pleural implants. However, this should be the exception rather than the rule.

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