

Oral Presentation 6 - Title: Talc and Tetracycline Pleurodesis during VATS Resection Results in Similar Recurrence for Primary Spontaneous Pneumothorax: Assessment of Re-Intervention in a Multi-Center Retrospective Cohort Study

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Background: Video-Assisted Thoracoscopic Surgery (VATS) with wedge resection/blebectomy and chemical pleurodesis is the standard surgical management of Primary Spontaneous Pneumothorax (PSP). However, the choice of pleurodesis agent is variable. We compared two of the most common pleurodesis agents used (talc and tetracycline derivatives) to determine whether either agent was associated with a lower risk of recurrence.

Methods/Research Design. A retrospective cohort study was performed utilizing the TriNetX Research Network, composed of approximately 150 million patients from 124 healthcare organizations, between the years of 2009-2023. Using ICD-10, SNOMED, and CPT codes we identified all patients who underwent VATS resection with either a talc or tetracycline family (i.e., minocycline or doxycycline) pleurodesis within one month of a PSP diagnosis and stratified subjects by pleurodesis agent. The primary outcome was recurrence requiring re-intervention (aspiration, chest tube, pleurodesis, or re-operation) at least 30 days after the initial surgery. Subsequently, we compared each cohort's risk of experiencing a recurrence requiring re-operation.

Conclusion (or Preliminary Conclusion, as applicable for a project in progress): The results from this multi-centered retrospective cohort study suggest that talc or tetracycline pleurodesis results in similar recurrences requiring re-intervention after VATS resection for PSP, while noting the talc cohort had more previous pneumothoraces. Additionally, recurrence requiring re-operation was similar. These findings support the use of either agent for surgical treatment of PSP.