

Evaluation of Diagnostic Accuracy of PETCT in Predicting Lymph Nodal Metastasis in NSCLC (Results Awaited)

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INTRODUCTION

The lung cancer treatment depends on the disease stage and patient selection to avoid unnecessary invasive procedures. While mediastinoscopy with histopathological analysis is considered the gold standard for mediastinal staging, less invasive techniques are preferred. Integrated PET-CT is a potential tool in the staging of NSCLC. It has shown variable sensitivity and specificity for mediastinal nodal staging in the background of inflammatory nodes posing serious issues in population with high prevalence of tuberculosis. Thus, in countries where tuberculosis and other granulomatous diseases are endemic, the general SUV cutoff value of 2.5 based on western population has low specificity. A positive mediastinal lymph node on PET mandates invasive mediastinal staging even in seemingly non metastatic cases in such cases and upstaging in majority of cancer patients. Current study aims to evaluate the diagnostic efficacy of SUV ratio of LN and primary (SUVn/t) for mediastinal staging in NSCLC thereby finding its applicability and to potentially avoid invasive techniques in future.

AIMS AND OBJECTIVES

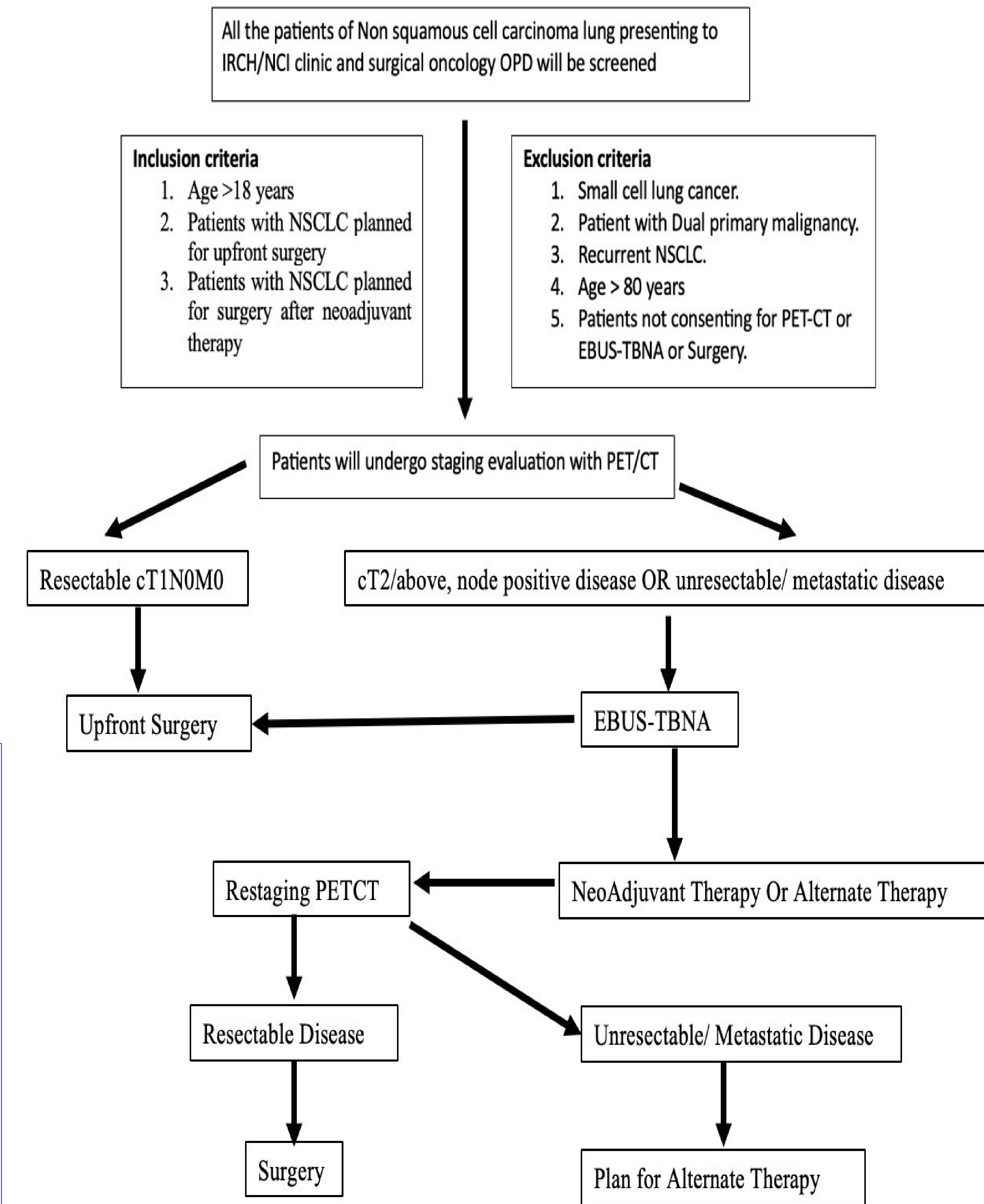
Primary objective - To evaluate the diagnostic accuracy of PET-CT In predicting lymph nodal metastasis in NSCLC using SUVn/t. Histopathology will be taken as the gold standard.

Secondary objective - To determine and compare the sensitivity, specificity, PPV, and NPV of SUVmax of mediastinal lymph nodes with (SUVn/t).

METHODS

Design - Prospective Cross-sectional study from 2026 to 2027.

Methodology - After PET-CT and confirmation of NSCLC, patient will be enrolled in study. SUV of tumour and highest nodal stage will be calculated, and its ratio is noted. Mediastinal lymph-nodal staging will be done with EBUS as per PET-CT. The patient will be treatment as per protocol after MDT discussion. PET-CT findings including SUVmax and SUVn/t will be compared to pathology report and data will be analysed.



Artificial Intelligence (AI) Use Disclaimer

The authors confirm that no generative artificial intelligence (AI) tools, language models, or machine-learning algorithms were used to generate, draft, or edit any portion of this manuscript. All research, data analysis, and writing are solely the intellectual work of the listed authors, who accept full responsibility for the content.

RESULTS

Awaited

This is an ongoing study that can aid in disease staging and treatment planning without invasive procedures, where amenities like EBUS or mediastinoscopy are not available.