

Risk stratification model may aid in lung cancer staging and treatment decisions

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A risk stratification model based on lymph node characteristics confirms with a high level of confidence the true lack of lung cancer in lymph nodes adequately sampled with endobronchial ultrasound-guided transbronchial needle aspiration and classified as negative.

Lung cancer treatment and prognosis is critically dependent on accurate staging that takes into account the extent to which cancer has spread from the primary lung tumor to other locations. Examination of [lymph nodes](#) containing [lung cancer cells](#) that have spread can be done by surgical removal, historically the standard practice, or by using a less invasive more cost effective technique called endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA). The use of EBUS-TBNA is well established in several countries throughout the world and how to stage the patients based on a positive result is defined. Less clear is how to stage and treat patients with negative EBUS-TBNA results.

Researchers at the University Hospital of South Manchester, United Kingdom examined 329 lymph nodes that were classified as EBUS-TBNA negative from patients with pathologically diagnosed or, in a limited number of cases, clinically diagnosed lung cancer. One hundred ninety six of the lymph nodes were used to derive a [model](#) based on lymph node radiologic and ultrasound characteristics for high or low risk of actually being positive for lung cancer upon further evaluation. The model was then validated with the remaining 133 lymph nodes.

Results published in the *Journal of Thoracic Oncology*, the official journal of the International Association for the Study of Lung Cancer (IASLC), show that lymph nodes categorized as low risk by the model had between a 98% and 99% chance of being truly negative based on the validation and derivation sets, respectively. Lymph nodes categorized in the model as high risk of being truly malignant was 65% in both the validation and derivation sets following a false negative EBUS-TBNA classification.

The authors acknowledge that "radiological staging will never replace pathological staging, but in cases of negative or inadequate EBUS-TBNA sampling our study demonstrates that the combination of radiologic and ultrasound data post-test can stratify patients into low and high risk for nodal malignancy". The authors are committed to further data collection and analysis of the model and conclude "this risk stratification model provides a mechanism for [lung cancer](#) multidisciplinary teams to discuss the risk of false negative EBUS-TBNA sampling, which may ultimately assist in the decision making process for either further staging procedures or direct progression to treatment".

More information: [journals.lww.com/jto/Abstract/...
_A_risk.99032.aspx](https://journals.lww.com/jto/Abstract/..._A_risk.99032.aspx)

Provided by International Association for the Study of Lung Cancer

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