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| **Yield of genomic characterisation in endobronchial ultrasound transbronchial needle aspiration (EBUS-TBNA) in the workup of advanced non-small cell lung cancer (NSCLC): a single-centre retrospective audit** |
| Lok Ming Lee1, Maria Guirguis1, Maninder Singh1, Krishna Bajee Sriram1,2 |
| *1Department of Respiratory Medicine, Gold Coast University Hospital, Southport QLD 4215, Australia**2School of Medicine and Dentistry, Griffith University, Southport QLD 4215, Australia* |
| **Introduction/Aim:** Introduction of endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) has allowed for a minimally invasive modality of mediastinal staging and diagnostic tissue sampling for non-small cell lung cancers (NSCLC). With advances in driver mutations and specific targeted molecular therapies, genomic profiling has become a mandatory part of standard diagnostic workup in those with advanced disease, and utility of EBUS-TBNA in this aspect is being furthermore characterised. **Methods:** EBUS-TBNA sampling was retrospectively assessed at a tertiary hospital between 2018 and 2020 for its yield of several molecular biomarkers by next-generation sequencing (NGS) and immunohistochemistry for those with histopathological confirmation of advanced NSCLC. **Results:** The retrospective analysis identified 542 patients that were diagnosed with NSCLC during this period, with 152 patients whose evaluation involved utilising EBUS-TBNA techniques for cytological diagnosis and molecular testing. Of those, 101 patients (66.4%) yielded enough tumour material for successful genotyping of at least one driver mutation. 94.7% were successfully subtyped on histopathology via EBUS-TBNA sampling. **Conclusion:** EBUS-TBNA has been demonstrated as a reliable sampling modality for not only initial cytological diagnosis but concurrent molecular characterisation for potential targeted molecular therapies. Further research is required to identify strategies that can maximise the yield of EBUS-TBNA genomic characterisation. **Grant Support:** NA |