recorded for 70 target lesions, 60% were homogenous while 40% were heterogeneous. Commonest lymph node stations sampled were station 7 (51.7%) and 4R (23.3%). Thirteen patients had tissue sampled via both FNA and FNB needles. Diagnoses included cancer (31% in FNB and 41.2% in FNA group), sarcoïdosis (24.1% in FNB and 11.8% in FNA group) and benign lymphadenopathy (34.5% in FNB and 23.5% in FNA group).

Pathologist preference for specimen quality was significantly better with FNB vs FNA (55.3% vs 28%, fisher’s exact test p=0.04). Tissue architecture preservation was better with FNB (57.4% with FNB vs 12% with FNA fisher’s exact test p=0.0002). However, diagnostic yield did not significantly differ between either needle (fisher’s exact test p=0.77). In patients with Non-Small Cell Lung Cancer (NSCLC), suitability for NGS (Using the Oncomine Precision Assay on the samples) was better with FNB than FNA (75% vs 30%, fisher’s exact test p=0.03). No significant complications were observed.

Conclusion FNB provides a better quality specimen with preserved architecture than FNA. FNB samples were more suitable for NGS testing in lung cancer diagnosis.

REFERENCES

EBUS TBNA FOR MOLECULAR TESTING IN LUNG CANCER – HOW MUCH IS ENOUGH?

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Background With the advent of immunotherapy and tyrosine kinase inhibitors, molecular testing has become routine and essential to guide oncological treatments. Endobronchial ultrasound and transbronchial needle aspirate (EBUS-TBNA) is a safe and accurate method for sampling mediastinal malignancies to diagnose and stage lung cancers. Sufficient tissue sampling for drug sensitivity testing (DST) is essential to ensure timely diagnosis and treatment. However, there is no clear guidance on the recommended number of passes per lymph node needed to facilitate this.

One study concluded that a median of 4 passes was needed to obtain sufficient tissue in adenocarcinomas. However, this required rapid on-site cytopathology evaluation (ROSE) and didn’t include DST for squamous carcinomas.

Standard practice at Royal United Hospital Bath is to perform 3 lymph node passes. Samples are deemed sufficient based on macroscopic appearances determined by the endoscopist. The objective of our audit was to determine if our practice provided adequate tissue for successful DST in line with national standards, which should be greater than 90% of samples.

Method A total of 251 cases were audited between 2018–2023. Of these, 107 were diagnostic of lung adenocarcinoma, squamous cell carcinoma and non-small cell lung cancer NOS and sent for DST.

Exclusion criteria included other diagnoses, samples not sent for DST, and cases with more than 3 lymph node passes recorded on the EBUS report. Samples in which some drug sensitivity testing could take place but there was not enough tissue for all the required test were categorised as insufficient.

Results Of the 107 cases, 98 (91.6%) were adequate samplings for DST and 9 (8.4%) were insufficient. All insufficient cases had a diagnosis of adenocarcinoma.

Conclusion Performing 3 lymph node passes were sufficient for DST without the support of ROSE and matched national standards in providing enough tissue sample for DST. This potentially can reduce the procedure duration for patients whilst maintaining diagnostic standards.

A ROSE BY ANY OTHER NAME WOULD SMELL AS SWEET: EVALUATION OF BIOMEDICAL SCIENTIST LED RAPID ON-SITE EVALUATION IN AN UK TEACHING HOSPITAL EBUS SERVICE

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Background Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) is an established method to investigate hilar and mediastinal lymph node pathology. Rapid On-site Evaluation (ROSE) of lymph node aspirates is thought to be advantageous by ensuring adequate sampling, and can provide a rapid provisional diagnosis. However, ROSE can be associated with significant costs and resource use including cytopathologist time. Our consultant led service in a tertiary centre, has access to ROSE of EBUS-TBNA performed by 2 senior biomedical scientists (BMS), which provides limited microscopic evaluation to provide feedback of specimen adequacy in real time.

We aimed to evaluate the accuracy of BMS led ROSE of EBUS-TBNA, by comparing the initial ROSE assessment to the final pathology report by a cytopathologist.