Abstract P78 Table 1

<table>
<thead>
<tr>
<th>Final diagnosis from EBUS-TBNA</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung cancer (non small cell carcinoma)</td>
<td>45 (23.4%)</td>
</tr>
<tr>
<td>Lung cancer (small cell carcinoma)</td>
<td>8 (4.2%)</td>
</tr>
<tr>
<td>Lung cancer (other)</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Other cancer site</td>
<td>4 (2.1%)</td>
</tr>
<tr>
<td>Granulomatous lymphadenitis</td>
<td>45 (23.4%)</td>
</tr>
<tr>
<td>Non-specific lymphadenitis</td>
<td>11 (5.7%)</td>
</tr>
<tr>
<td>Normal lymphocytes</td>
<td>77 (40.1%)</td>
</tr>
</tbody>
</table>

Methods Data was collected prospectively for consecutive EBUS-TBNA procedures with ROSE between August 2021 – July 2022.

The BMS rendered assessments were compared with the cytopathologist rendered assessments (as assumed gold standard), with sensitivity and specificity subsequently calculated. The mean turnaround time (TAT) was calculated for all cases analysed, and the final pathological diagnoses were also described.

Results A total of 201 EBUS procedures were reviewed. Nine of these were excluded from our analysis as the final cytopathological review reported inadequate sampling, leaving 192 assessments. 109 of the patients were male (56.8%), and the mean age of all cases was 57.9 years (SD 17.1).

The sensitivity and specificity of EBUS-TBNA with BMS led ROSE was calculated at 92.8% and 100% respectively, with an accuracy of 96.4%. The mean TAT was 5.9 days (SD 2.9).

Conclusion To our knowledge this is the first UK study to evaluate an EBUS service with BMS led ROSE, which demonstrated high sensitivity and specificity when compared to the final cytopathological diagnosis. The service has a quick TAT which is key to empowering cancer pathways such as the National Optimal Lung Cancer Pathway to improve patient outcomes.

We believe this is a unique use of resource in this setting. This is a cost-effective strategy that is likely to increase sample adequacy, reduce time to final diagnosis and reduce the need for repeat procedures.

Abstract P79 Table 1

<table>
<thead>
<tr>
<th>Sample Adequacy assessment</th>
<th>Total</th>
<th>BMS</th>
<th>Cytopathologist</th>
<th>Kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate</td>
<td>66</td>
<td>65</td>
<td>66</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[CI: 0.72–0.92]</td>
</tr>
<tr>
<td>Inadequate</td>
<td>20</td>
<td>17</td>
<td>20</td>
<td>Weighed Kappa 0.92</td>
</tr>
</tbody>
</table>

Methods The BMS and cytopathologist findings for 318 passes from 86 target sites (78 lymph nodes, 5 lung masses, 3 left adrenal glands) from 43 patients over a 1-year period were compared. Comparisons of adequacy and preliminary diagnoses were based on inter-observer Cohen’s Kappa coefficient with a 95% confidence interval (CI). The broad diagnostic categories were: 1. Inadequate 2. Adequate 2a. Benign 2b. Malignant. Adequacy was defined as 40 lymphocytes per high power field (in benign nodes) or the presence of diagnostic cells.

Results Perfect correlation was found between BMS and Cytopathologist in the above diagnostic categories. The kappa coefficient was 0.82 [CI: 0.72–0.92] and the weighted kappa (appropriate for categories which are ordered or increase in severity) 0.92.

Conclusion Both adequacy assessments and preliminary diagnoses performed by BMS were highly correlated with the assessment by the cytopathologist, the overall correlation being ‘almost perfect’. This confirms previous studies showing that appropriately trained, competency assessed BMSs can provide a comprehensive ROSE service which may increase availability in UK centres.

REFERENCE

P79

ENHANCING EFFICIENCY AND ACCESSIBILITY IN ENDOBRONCHIAL ULTRASOUND-GUIDED TRANSPERIBRONCHIAL NEEDLE ASPIRATION(EBUS-TBNA); TRAINED BIOMEDICAL SCIENTISTS DELIVER ACCURATE RAPID ON SITE EVALUATION (ROSE) COMPARABLE TO CYTOPATHOLOGISTS

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10.1136/thorax-2023-BTSabstracts.231

Objectives Rapid on-site evaluation (ROSE) of endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) samples adds value by including adequacy assessment, enhanced sampling (once ROSE has revealed the status of the target), triage for ancillary tests and if appropriate, assignment of a preliminary diagnosis. At West Hertfordshire Teaching Hospitals NHS Trust (WHUTH), this may be performed by either a trained Biomedical Scientist (BMS) or a Consultant Cytopathologist. The aim of this study was to compare outcomes by BMS and Consultant cytopathologist, reviewing their independent assessments of adequacy and diagnosis, referring to the final pathology report as the ‘gold standard’. ROSE reduces the number of sites requiring sampling and may enhance acquisition of material for molecular analysis. The lack of cytopathologists’ availability is one of the limiting factors for implementing a ROSE service. In the UK, the Institute of Biomedical Science (IBMS) now has a formal qualification allowing BMSs to perform ROSE.

Methods The BMS and cytopathologist findings for 318 passes from 86 target sites (78 lymph nodes, 5 lung masses, 3 left adrenal glands) from 43 patients over a 1-year period were compared. Comparisons of adequacy and preliminary diagnoses were based on inter-observer Cohen’s Kappa coefficient with a 95% confidence interval (CI).

Results Perfect correlation was found between BMS and Cytopathologist in the above diagnostic categories. The kappa coefficient was 0.82 (CI: 0.72–0.92) and the weighted kappa (appropriate for categories which are ordered or increase in severity) 0.92.

Conclusion Both adequacy assessments and preliminary diagnoses performed by BMS were highly correlated with the assessment by the cytopathologist, the overall correlation being ‘almost perfect’. This confirms previous studies showing that appropriately trained, competency assessed BMSs can provide a comprehensive ROSE service which may increase availability in UK centres.

REFERENCE

P80

COMPARING THE EFFECTS OF LOCAL ANAESTHETIC VIA TRANSPERICOID INJECTION VS DIRECT VISUALISATION ON COUGH, CHOKING AND PATIENT COMFORT DURING FLEXIBLE BRONCHOSCOPY – AN OBSERVATIONAL STUDY

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Introduction British Thoracic Society bronchoscopy guidelines suggest either direct visualization (DV) or transcricoid local

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anaesthetic (LA) delivery can be used during bronchoscopy to anaesthetize the upper airways. This study aimed to assess the effect on lidocaine requirement and patient comfort when using DV vs transcricoid LA delivery during bronchoscopy.

Method A prospective observational analysis from February-June 2023 was performed for patients undergoing bronchoscopy using either transcricoid or DV LA administration. 31 patients underwent bronchoscopy. All received nasal instillagel containing 2% lidocaine, oral spray LA (10 mg lidocaine/spray) and IV Midazolam (2-4 mg) as standard. Data was collected for the total amount of LA used, patient reported cough, choking and comfort throughout the procedure. Comfort was recorded using a patient ranked analogue scale 0-10 (Very uncomfortable to very comfortable). Statistical significance was calculated using unpaired Student’s T-test.

Results 31 patients underwent bronchoscopy. 16 patients received LA via transcricoid injection (mean age 65.12±13.15 years, female 63%) and 15 via DV (mean age 61.26±14.20 years, female 60%). 3 procedures were not completed due to patient discomfort – 2 in the transcricoid group and 1 in the DV group. There was no significant difference in the dose of midazolam used between DV and transcricoid groups (mean dose 1.63 mg vs 1.75 mg, p=0.53). The total dose of lidocaine used in DV (mean dose 424 mg) was significantly higher than the cohort who received transcricoid anaesthesia (mean dose 312.5 mg, p<0.01). There was a significant reduction in cough experienced by the patients in the transcricoid group with 37.5% experiencing no cough at all vs 6.66% in the DV group. Equally, 87.5% of transcricoid anaesthetic cohort experienced no episodes of choking vs 46.6% in the DV group. Patient comfort differed between the 2 cohorts with the transcricoid group having a median comfort score of 8 vs DV group with a comfort score of 5. There were no complications of administering transcricoid anaesthesia.

Conclusion This small observational study suggests multiple benefits of transcricoid local anaesthetic delivery vs direct visualization, including reduced lidocaine requirements and improved patient comfort. Our study suggests potential superiority of the transcricoid route and larger scale observational study is warranted.

P81 SINGLE CENTRE EXPERIENCE OF PHYSICIAN LED COMBINED RIGID AND FLEXIBLE BRONCHOSCOPY IN BENIGN AND MALIGNANT AIRWAY MANAGEMENT

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Introduction Successful Rigid Bronchoscopy was first performed in 1897 to allow foreign body removal, and it still remains the cornerstone of complex diagnostic and therapeutic airway management, despite the introduction and technological advancements in flexible bronchoscopy in 1968. It allows safe easy access to the large airways complemented by the use of flexible bronchoscopy to perform diagnostic and therapeutic procedures, whilst maintaining uninterrupted adequate ventilation during the procedure. In the UK however, rigid is performed mostly by the Thoracic Surgeons with limited indications. Physician-led combined rigid and flexible bronchoscopy was introduced at the University Hospitals of North Midlands NHS Trust in 2013 and it is now a well-established safe technique to allow advanced bronchoscopic interventions.