Results were performed in 83 cases. BAL sensitivity and specificity for squamous cell carcinoma, 9 were adenocarcinoma, and one case was small cell carcinoma. The correlation between BAL cytology and histology was 55%, and 95% respectively. Of the 21 malignant conditions, 11 were adenocarcinoma, 9 were squamous cell carcinoma, 2 were large cell carcinoma, and one case was small cell carcinoma. The ages of the patients ranged from 18 to 86 years old. BAL cytology showed benign and malignant conditions in 69 (76.6%), 18 (21.4%), and 6 (7.0%) cases respectively. The correlation between BAL cytology and histology was performed in 83 cases to determine the sensitivity and specificity of BAL in diagnosis of lung carcinoma.

Results: Out of the 179 cases, 118 (65.9%) were males and 61 (34.1%) were females. The ages ranged from 18 to 86 years old. BAL cytology cases reported with diagnoses of negative for malignant cells (n = 152, 84.9%), suspicious (n = 12, 6.7%), and carcinoma (n = 15, 8.4%). Bronchiol biopsy specimens showed benign and malignant conditions in 69 (76.6%), and 21 (23.4%) respectively. Of the 21 malignant conditions, 11 were squamous cell carcinoma, 9 were adenocarcinoma, and one case was small cell carcinoma. The correlation between BAL cytology and histology results were performed in 83 cases. BAL sensitivity and specificity was 55%, and 95% respectively.

Conclusion: Bronchoalveolar Lavage (BAL) is an easily performed, non-invasive, and well tolerated procedure that is useful in routine assessment of patients for lung carcinoma. The low sensitivity of BAL in our study stresses the importance of optimum sampling as well as cytorepetitive techniques using cyto-centrifugation. BAL combined to bronchial biopsy increases the accuracy of lung carcinoma diagnosis.

Table 1

<table>
<thead>
<tr>
<th>Lymphoma Diagnosis</th>
<th>Cytology Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UNSAT</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma (N=11)</td>
<td></td>
</tr>
<tr>
<td>Large B-cell lymphoma</td>
<td>2</td>
</tr>
<tr>
<td>Mantle cell lymphoma</td>
<td>0</td>
</tr>
<tr>
<td>Follicular lymphoma</td>
<td>0</td>
</tr>
<tr>
<td>CLL/LPL</td>
<td>0</td>
</tr>
<tr>
<td>B-cell lymphoma with plasmacytic</td>
<td>0</td>
</tr>
<tr>
<td>differentiation</td>
<td></td>
</tr>
<tr>
<td>Classical Hodgkin lymphoma (N=9)</td>
<td>1</td>
</tr>
<tr>
<td>Post transplant lymphoproliferative</td>
<td>0</td>
</tr>
</tbody>
</table>

Legend: UNSAT, unsatisfactory; LTO, less than optimal; SAT, satisfactory; TN, false negative; TP, false positive.

Evaluation of Bronchoalveolar Lavage Cytology (B.A.L) in the Diagnosis of Lung Cancer among Sudanese Patients in Khartoum State Hospitals

Hassan Ebrahim, MSc. University of Khartoum, Khartoum, Sudan

Introduction: Lung cancer is the most common cause of cancer mortality worldwide, causing approximately 1.2 million deaths per year. Bronchoalveolar Lavage (BAL) is a minimally invasive procedure that has gained acceptance and steady popularity as a tool for diagnosing lung cancer. The aim of this study was to compare the diagnostic efficacy of BAL in diagnosing lung cancer, taking bronchial biopsy as the ‘Gold Standard’ diagnostic test.

Material and Methods: During the period from 2010 to 2012, 179 BAL cytology samples were prepared for cytology examination and smears were stained with Diff Quick stain. Bronchiol biopsy histological sections were stained with H&E stain. Histology/Cytology correlation was performed in 83 cases to determine the sensitivity and specificity of BAL in diagnosis of lung carcinoma.

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Introduction: Although granulomas (GR) are relatively rarely encountered in FNAs, it is important to recognize them during rapid on-site evaluation to triage them for ancillary studies and assign them a precise etiology.

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Materials and Methods: We identified all patients diagnosed as GR on FNA during a 10 year period (2004-2013) and reviewed their clinical, imaging findings, microbiology and serological findings, and follow-up pathology results. An etiology was assigned to GR based on history, clinical and imaging findings and the results of special stains and cultures.

Results: Of the 15,953 FNAs accessioned during the study period, 140 specimens (0.9%) from 110 patients were diagnosed as having GR. 75 patients (40%) subsequently died (2 days-4 years), 12 (40%) were alive (5 months-7 years follow-up), and 6 were lost to follow-up.

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Conclusions: 1) Most granulomas diagnosed in deep FNAs are nonnecrotizing and are caused by sarcoidosis and SRs, which are cytologically indistinguishable. 2) Although malignant cells are only rarely found in samples with GR, careful scrutiny of the background lymphocytes is recommended to avoid missing lymphomas.

Untangling the Significance of Granulomas Diagnosed on Fine Needle Aspirations of Intrathoracic and Intraabdominal Sites

Lisa Smith, DO, Swati Mehrotra, MD, Eya Wojcik, MD, MIAC, Razan Massarani-Wafaí, MD, Guliz Barkan, MD, Mohammed Atieh, DO, Stefan Pambuccian, MD. Loyola University Medical Center, Maywood, Illinois

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