Diagnostic Value of Endoscopic Ultrasound-Guided Fine Needle Aspiration of Intra-Abdominal Lymph Nodes in Patients with Concurrent Biopsy of Intra-Abdominal Tumors

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BACKGROUND

• Diagnostic endoscopic biopsy of intra-abdominal lesions may be performed prior to surgical resections.
• Endoscopic ultrasound-guided fine needle aspiration of intra-abdominal lymph nodes may also be performed to:
  • Yield more information
  • Allow for more accurate staging
• We evaluate the additional staging information concurrent fine needle aspiration of intra-abdominal lymph nodes provided

DESIGN

• We included all patients at our institution from January 1, 2000 to March 30, 2015 who, during the same endoscopic procedure, had:
  • Endoscopic ultrasound guided fine needle aspiration of an intra-abdominal lymph node AND
  • Endoscopic ultrasound guided fine needle aspiration OR a surgical biopsy of an intra-abdominal lesion
• We excluded all patients for whom the final diagnosis was lympho-proliferative
• Primary lesions were:
  • Pancreatic
  • Upper gastrointestinal tract
  • Biliary tract
  • Gallbladder
• 63 total patients

RESULTS

• 44 patients with concurrent endoscopic ultrasound guided fine needle aspiration of an intra-abdominal lesion and lymph nodes (Table 1)
• 19 patients with concurrent biopsy of intra-abdominal lesion and endoscopic ultrasound guided fine needle aspiration of intra-abdominal lymph nodes (Table 2)

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Insufficient lesions (4)</th>
<th>Negative lesions (8)</th>
<th>Atypical lesions (16)</th>
<th>Suspicious lesions (5)</th>
<th>Positive lesions (11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient Lymph Node tissue (6)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Negative Lymph Node (20)</td>
<td>3</td>
<td>6</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Atypical Lymph Node (6)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Positive Lymph Node (12)</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>Negative lesions (13)</th>
<th>Positive lesions (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient Lymph Node tissue (2)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Negative Lymph Node (5)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Atypical Lymph Node (1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Positive Lymph Node (11)</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

RESULTS

• 44 patients with concurrent endoscopic ultrasound guided fine needle aspiration of an intra-abdominal lesion and lymph nodes, the diagnostic breakdown was:
  • 4 insufficient (9%)
  • 8 negative (18%)
  • 16 atypical (36%)
  • 5 suspicious (11%)
  • 11 positive (25%)
• 19 patients with concurrent biopsy of intra-abdominal lesion and endoscopic ultrasound guided fine needle aspiration of intra-abdominal lymph nodes, the diagnostic breakdown was:
  • 13 negative (68%)
  • 6 positive (32%)

CONCLUSION

• Concurrent endoscopic ultrasound guided fine needle aspiration of intra-abdominal lymph nodes with endoscopic ultrasound guided fine needle aspiration or biopsy of intra-abdominal lesions offers important additional diagnostic information.
• We found a total of 9 cases in which the intra-abdominal lesion was not definitive for malignancy, but the lymph node was positive.
• We found 23 cases with positive lymph nodes, who were upstaged based on this information.
• Therefore, we conclude endoscopic ultrasound guided fine needle aspiration offers vital diagnostic information and should be performed when feasible as part of a pre-operative work-up.