Which Biopsy Method Is More Appropriate to Provide the Highest Diagnostic Accuracy for Pleural Effusion?

**STUDY DESIGN**

Prospective, randomized, parallel study (n=228) with undiagnosed exudative pleural effusions using 2 different biopsy methods to determine diagnostic sensitivity, reliability, and safety in 2 groups

- Group 1 – Pleural effusion
- Group 2 – Pleural effusion with thickening or lesion

**RESULTS**

- Image-assisted Abrams needle biopsy (IA-ANPB)
- Medical thoracoscopy (MT)

![Graph showing diagnostic sensitivity, reliability, and safety comparison between IA-ANPB and MT](image)

- Rate of complications was not different

<table>
<thead>
<tr>
<th>Biopsy Method</th>
<th>Group 1</th>
<th>Group 2</th>
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<tbody>
<tr>
<td>IA-ANPB</td>
<td>96.9%</td>
<td>95.4%</td>
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<tr>
<td>MT</td>
<td>69.7%</td>
<td>88.1%</td>
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- False-negative rate:
  - IA-ANPB: 3.1%
  - MT: 4.7%
  - IA-ANPB: 11.9%
  - MT: 15.8%

In this study, MT showed a high diagnostic success in all patients with pleural effusion. IA-ANPB showed similar diagnostic success in pleural effusion with pleural thickening or lesions. In the latter case, IA-ANPB could be preferable to MT.