Does the Combination of Needle Aspiration and Forceps Biopsy Improve Diagnostic Yield Compared With a Single Device When Performing Electromagnetic Navigation Bronchoscopy?

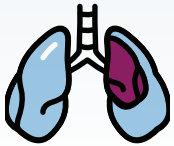
STUDY DESIGN

- Randomized crossover study with 142 participants with peripheral pulmonary lesions
- Electromagnetic navigation bronchoscopy (ENB)-guided needle aspiration and forceps biopsy were sequentially performed under moderate sedation in a 1:1 randomized order
- Participants were enrolled between December 2021 and November 2023 in a single center in South Korea

RESULTS

Average size of the lesion: 20.8 mm
Average distance to pleura: 17.7 mm

	Diagnostic yield (%)	*P* value		Sensitivities for malignancy (%)
		vs forceps	vs needle	
Forceps biopsy	44.4	NA	NA	47.5
Needle aspiration	51.4	.221	NA	58.3
Combination	66.9	< .001	< .001	71.7



Total pneumothorax occurrence: **3.5%**
Pneumothorax requiring chest tube drainage: **1.4%**

In this study, the combination of ENB-guided needle aspiration and forceps biopsy was shown to significantly improve the overall diagnostic yield and sensitivity compared with either approach alone for diagnosing pulmonary lesions with a favorable safety profile.

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