

Procedures

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DIAGNOSTIC YIELD OF ELECTROMAGNETIC NAVIGATION BRONCHOSCOPY IN SUBCENTIMETRIC PULMONARY NODULES

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PURPOSE: Electromagnetic navigation bronchoscopy (ENB) facilitates lung nodules sampling located in the distal bronchial airway with a diagnostic yield range between 20% and 80%.

Observational retrospective single-center study was conducted to determine diagnostic yield and medical decision concordance addressing subcentimetric nodules with ENB in a third-level general hospital.

METHODS: ENB was performed in 385 patients during the period from November 2011 to November 2019. In a sub-population analysis, (N=54) patients with pulmonary nodules ≤ 9 mm were included. Demographic data, nodule characteristics, and complications related to the procedure have also been described.

RESULTS: The mean age of patients was 68 ± 9 years old with male predominance (55%); Mean nodule size was 7.4 ± 1.35 mm. ENB diagnostic yield was 44% (n=22); 8 (36.3%) were malignant (75% had bronchus sign) and 14 (63.6%) were infectious/inflammatory nodules (mean follow-up of 24 ± 2 months). Adenocarcinoma was the most prevalent malignancy (87.5%). ENB was not diagnostic in 28(56%) cases, in which a second procedure or surgery was performed for assessment of diagnosis or final treatment. In 4 cases no clear diagnostic was obtained and they underwent SBRT because of high comorbidity and suspected malignancy. Pneumothorax occurred in 3(5.5%) patients; there was no case of pneumonia or exacerbation related to the procedure.

CONCLUSIONS: ENB it's a safe procedure with a low diagnostic yield in subcentimetric nodules, it should be reserved for selected cases with high pre-clinical malignant suspicious and the yield increases when bronchus sign is present.

CLINICAL IMPLICATIONS: To our knowledge this is the first study addressing subcentimetric peripheral lesions using this technic.

DISCLOSURE: No significant relationships.

KEYWORDS: navigation, Bronchoscopy, subcentimetric

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