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11<sup>th</sup> International Meeting on General Thoracic Surgery



Hospital  
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10<sup>th</sup> International Workshop on Surgical Exploration of the  
Mediastinum and Systematic Nodal Dissection



5<sup>th</sup> Meeting of the Thoracic Oncology, Thoracic  
Surgery, Techniques & Transplant, Respiratory Nursing  
and Respiratory Physiotherapy Areas of the Spanish  
Society of Pneumology and Thoracic Surgery (SEPAR)



3<sup>rd</sup> Joint Meeting of the Spanish Society of  
Thoracic Surgery (SECT)



30<sup>th</sup> Congress of the "Asociación Iberoamericana  
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10<sup>th</sup> International Workshop on Surgical Exploration of the  
Mediastinum and Systematic Nodal Dissection



## DIFFERENT PATHS OF CT-GUIDED PERCUTANEOUS TRANSTHORACIC NEEDLE BIOPSY FOR DIAGNOSIS OF SUBPLEURAL NODULES

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### Objective

To investigate the application value of CT-guided percutaneous transthoracic needle biopsy (PTNB) in diagnosis of subpleural nodules.

### Methods

236 cases of subpleural nodules were treated with CT-guided PTNB. According to the angle between puncture needle and pleura, patients were divided into long path group (the angle of puncture needle angle and pleura  $\leq 50^\circ$ ,  $n=147$ ) and short path group (the angle of puncture needle angle and pleura  $>50^\circ$ ,  $n=89$ ). The accuracy rate of the diagnosis, success rate of single puncture, pneumothorax and postoperative bleeding were compared between the two groups. The number of needle adjustment, puncture time and pneumothorax and hemorrhage in patients with nodules diameter of  $\leq 10\text{mm}$ ,  $10\text{-}20\text{mm}$  and  $\geq 20\text{mm}$  were compared respectively.

### Results

There was no significant difference in accuracy rate of the diagnosis, success rate of single puncture, pneumothorax and postoperative bleeding. The difference between the two groups was statistically significant ( $P>0.05$ ). The number of needle adjustments and puncture time for lesions with nodule diameter  $\leq 10\text{mm}$  and  $10 \sim 20\text{mm}$  in long path group was shorter than that in short path group ( $P<0.05$ ).

### Conclusion

CT-guided PTNB has a high accuracy for subpleural nodules. Long path puncture is recommended for subpleural nodules with diameter  $< 20\text{mm}$ .