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Specialty : Thyroid
Lecture Title : US-Based Risk Stratification of FNA/CNB Diagnosed Category IV Nodules
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Thyroid nodules diagnosed as follicular neoplasm (Bethesda category IV) on fine-needle aspiration (FNA) or core-needle biopsy (CNB) represent a well-recognized diagnostic challenge, as reliable preoperative differentiation between benign and malignant lesions remains limited. Consequently, a substantial proportion of patients undergo diagnostic surgery for ultimately benign disease.

This lecture will review the limitations of current ultrasound-based risk stratification systems in follicular-patterned lesions and highlight key ultrasound features associated with malignancy, including nuclear atypia, rim calcification, macrocalcification, punctate echogenic foci, mixed echogenicity, and structural abnormalities such as trabecular formation or focal protrusion.

Based on these findings, an integrated ultrasound-based risk stratification model, the FN-US RSS (Follicular Neoplasm–Ultrasound Risk Stratification System), will be introduced. This system combines cytologic information and ultrasound features to provide a structured and clinically applicable framework for risk assessment and management decision-making.

The diagnostic performance of the FN-US RSS will be presented using multicenter data, demonstrating improved sensitivity for clinically significant malignancy while reducing unnecessary surgery compared with conventional approaches.

This lecture aims to provide a practical and evidence-based strategy for optimizing the management of follicular-patterned thyroid nodules and to support more personalized clinical decision-making in daily practice.