



Diagnosis and management of indeterminate thyroid nodules

Dear *Gland Surgery* readers,

We are pleased to introduce this focused issue of *Gland Surgery* on the “Cancer Risk Stratification and Management of Indeterminate Thyroid Nodules”.

During the last decade, thyroid cancer has become the most commonly diagnosed endocrine malignancy in the world (1,2). The rapid expansion of thyroid ultrasound use, both for diagnosis and for screening has uncovered a reservoir of thyroid disease, contributing to a thyroid cancer “epidemic” (3). This leads to an increasing number of fine needle aspirations (FNA), with approximately 25% of all thyroid biopsies not rendering a definitive cytological diagnosis. Based on the current diagnostic approach, half of all resected thyroid nodules have a pre-operative indeterminate cytology and 75% of them prove to be benign after diagnostic surgery. This ongoing overtreatment exposes our patients to short- and long-term surgical complications, and many will face the need for lifelong thyroid hormone replacement. Therefore, the management of indeterminate thyroid nodules is of great importance.

Several international experts in the field of thyroidology have been invited to contribute to this focused issue, covering a large range of topics. We hope you will learn from reading their work.

From the cytopathologist’s view, Dr. Bongiovanni’s group elaborates on the dilemma posed by indeterminate FNA classifications and reviews the best management approach using the Bethesda system for reporting thyroid cytopathology.

Recent changes made in the nomenclature of low-risk thyroid nodules require new guidelines for the approach to noninvasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP). Their rigorous histopathologic diagnostic criteria, their impact on the diagnosis of malignant thyroid nodules and a management approach is described here by Dr. Pusztaszeri *et al.*

On the technical side, Drs. Baek and Yim present in details the application of core needle biopsies for the diagnosis of indeterminate thyroid nodules, presenting a review of Korea’s clinical recommendations.

Dr. Dibner’s group presents a prospective study in preoperative thyroid FNA samples, describing molecular biomarkers predictive for papillary thyroid carcinoma (PTC), validated on postoperative samples of PTC. This approach could possibly be used as ancillary method for cytological preoperative diagnostics in the future.

Additionally, the group led by Dr. Walter reviews the currently available radioisotope imaging techniques for discriminating benign from malignant cytologically indeterminate thyroid nodules, and for supporting clinical decision-making.

Further discussed are surgical management approaches for indeterminate thyroid nodules; ranging from the use of frozen section during thyroid surgery, discussed by Drs. Najah and Tresallet, to the extent of thyroid resection, discussed by Drs. Almquist and Muth, who debate the best surgical approaches in this particular situation, aiming to improve outcome and to reduce morbidity.

We thank all collaborators for their excellent contributions and thank the staff at *Gland Surgery* for coordinating and handling this issue.

We wish you enjoyable reading,

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Footnote

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