The Bethesda System for Reporting Thyroid Cytopathology II

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Cytopathology is a dynamic discipline, with thyroid fine-needle aspiration (FNA) being one of the most important diagnostic modalities of choice for patients presenting with a nodule. Similar to other areas of pathology, thyroid cytopathology requires a truly multidisciplinary approach, with the close interaction and understanding of experts from various teams managing patients with thyroid disease.

Terminology, nomenclature, and reporting systems together form an important means through which pathologists convey their microscopic interpretations and diagnoses to the treating physicians in a clinically relevant way. It has been almost 9 years since the National Cancer Institute’s ‘Thyroid Fine Needle Aspiration State of the Science Conference’ was held in 2007 in Bethesda, Md., USA, and the subsequent publication of the well-received ‘The Bethesda System for Reporting Thyroid Cytopathology’ (TBSRTC) monograph in 2010 \cite{1}. TBSRTC was a success due to its unambiguous and succinct language, clinically relevant approach, and clarity of communication. It provided a highly reproducible and much-needed thyroid FNA reporting system for cytopathologists, incorporating evidence-based data and stratification of clinically relevant risks of malignancy (ROM), implicit in each of the 6 diagnostic categories. The multidisciplinary approach led to clearly defined and applicable management algorithms for the treating clinicians \cite{2}. The newly introduced and well-defined ‘indeterminate’ diagnostic categories in TBSRTC soon led to the successful introduction of a whole new era of ‘thyroid molecular cytopathology’, with novel tests further enhancing the accuracy of an FNA diagnosis \cite{3, 4}. The success of TBSRTC is reflected in its widespread use by cytopathologists globally, the translation of the monograph into 4 other languages, a large amount of published scientific literature, and its endorsement by major professional organizations of endocrinologists and head and neck surgeons. Indeed, since its introduction, TBSRTC has become one of the most cited pathology terminology and reporting systems in the published scientific literature on thyroid disease in general, and on FNA cytopathology in particular \cite{5}.

Due to many recent developments in molecular diagnostics, clinical management patterns such as the new 2015 American Thyroid Association (ATA) guidelines \cite{6}, the recent introduction of the new pathologic entity ‘NIFTP’ (noninvasive follicular thyroid neoplasm with papillary-like nuclear features) and others factors, TBSRTC needed fresh discussion, and a decision was made to publish a revised edition (TBSRTC II) by the spring of 2018. To initiate work on this exciting project and gather expert opinion, a special 2½-hour symposium entitled ‘TBSRTC: Past, Present and Future’ was presented at the International Cytology Congress (ICC) in Yokohama, Japan, in May 2016, moderated by Drs. Ali and Philippe Vielh. A team of internationally renowned thyroid cytopathology experts, headed by Drs. Bill Faquin,
Esther Diana Rossi, and Marc Pusztaszeri, worked tirelessly for many months, reviewing and summarizing nearly all the published literature in English since the introduction of TBSRTC and leading up to the symposium. The key findings by the group were presented at the ICC symposium to a large audience. The salient points and recommendations of the symposium have been summarized as a ‘Special Commentary’ in the current issue of Acta Cytologica [7] as well as appearing simultaneously in the Journal of the American Society of Cytopathology (JASC) [8] in its September-October issue. This published article by Pusztaszeri et al. [7, 8] provides a useful reference guide and proposals for potential modifications to the authors of chapters in the forthcoming TBSRTC II. We owe a debt of gratitude to the International Academy of Cytology (IAC) and to Dr. Philippe Vielh (the immediate past president) for their help in arranging the special symposium in Yokohama, and to all the presenters of the seminar and authors of the special commentary on the Bethesda update.

All authors on the updated Bethesda monograph are presently working hard on the revision, and we anticipate a timely launch of the revised ‘TBSRTC II’ in early 2018. Stay tuned.

References


6. Haugen BR, Alexander E, Bible KC, et al; American Thyroid Association (ATA) Guidelines Taskforce on Thyroid Nodules and Differentiated Thyroid Cancer: 2015 American Thyroid Association management guidelines for adult patients with thyroid nodules and differentiated thyroid cancer. Thyroid 2016;26:1–133.
