COMMENTARY

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The 2023 Bethesda system for reporting thyroid cytopathology: novi sub sole, subdivision is no more debatable, in thyroidology

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The 2010 Bethesda system for reporting thyroid cytopathology (TBSRTC) was initially proposed at the National Cancer Institute (NCI) Thyroid Fine Needle Aspiration (FNA) State of the Art and Science Conference held in Bethesda, Maryland, 2007. Afterward, the 2010 TBSRTC, first edition, suggested thyroidologists to utilize a standardized, six-category-based reporting system for thyroid FNA in the States and worldwide by Cibas and Ali, founders of this lexicon, which was published in the 19th volume of *Thyroid*[1]. Wielding TBSRTC has also been endorsed by the 2015 American Thyroid Association (ATA) management guidelines[2] similar to the 2009 ATA guidelines[3], which was the revision of the 2006 ATA guidelines[4], through the management of this delicate endocrine gland[1-9].

On May 28–June 01, 2016, a special 2½ h symposium entitled "The Bethesda System for reporting thyroid cytopathology: past, present, future" was moderated by Ali and Vielh at the 19th International Congress of Cytology, ICC, in Pacifico Yokohama, Japan[10,11]. In addition to this, Pusztaszeri et al.[12] and Ali et al.[10,11] also discussed briefly the consensus of the aforementioned panel, recommendations, proposed modifications, and updates for a second edition of TBSRTC by anticipating its emerging date in early 2018. However, the 2017 TBSRTC, second edition, was then published in the 27th volume of *Thyroid*, by rectifying the implied risk of malignancy (ROM) for each category, remarkable for indeterminate cytology, molecular testing recommendations interpolating explanatory notes in order to state some may represent the newly established non-invasive follicular thyroid neoplasm with papillary-like nuclear features, NIFTP[13].

Mater artium necessitas. After these two successful former editions worldwide, a third edition of this lexicon, the 2023 TBSRTC, has been announced currently again by Ali et al.[14]. Of note, the up-to-date third edition has been published and available online on July 08, 2023 in *Thyroid* in order to shed light on (a) simplifying the six diagnostic categories with a single name for each, adopting the new histologic terminologies according to the 2022 World Health Organization (WHO) Classification of Thyroid Neoplasms: (i) nondiagnostic; (ii) benign, (iii) atypia of undetermined significance (AUS), (iv) follicular neoplasm, (v) suspicious for malignancy, and (vi) malignant; (b) updating and refining each category by implying ROM based on data reported after the second edition; (c) suggesting an average ROM for each category, besides an expected range of risk of carcinoma; (d) subdividing AUS into two subgroups based on the implied ROM and molecular profiling tests; (e) insertion and discussion of pediatric thyroid diseases and ROMs with the management of algorithms; (f) appending two new chapters of expanded use of molecular and ancillary testing in thyroid cytopathology, and clinical perspectives and imaging findings[14].

Herewith, we sincerely appreciate one of the masters of thyroid cytopathology in order to illuminate the challenging issue, noted for this crucial subdivision, in their updated[14] lexicon. To date, assessment for indeterminate cytology, particularly category III, has still been one of the most challenging issues in thyroidology[15-20]. To this end, in February 2021, we emphasized whether or not it is essential to maintain category III as a unique and indivisible category among indeterminate cytology in the 67th volume of *Rev Assoc Med Bras*[21]. Afterward, we published an article in the same volume of *Rev Assoc Med Bras*, about blurred lines for managing thyroid nodules in the era of category III in a possible forthcoming TBSRTC, 3rd edition on October 2021. Of note, we postulated in this publication in the 67th volume of *Rev Assoc Med Bras* that the so-called subdivision demand and so kind of reality in category III, TBSRTC,

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2nd edition as (i) Category IIIA: AUS/FLUS without nuclear atypia (AUS/FLUS wo NA) and (ii) Category IIIB: AUS/FLUS with nuclear atypia (AUS/FLUS w NA)[22], which is very similar to that of Ali et al.[14]. Finally, we have also currently recommended working with subdivisions instead of insisting on a monolithic category III to be able to resolve the issue of the ongoing debate on indeterminate cytology in our epub ahead of the print article in *Ultrasonography* with a submission date of June 08, 2023[23].

Breviter, we have emphasized opting for a subdivision for AUS (formerly AUS/FLUS) and the value of NA in our three works before the updated third edition. NAs have non-negligible clues in these nodules. *E fructu arbor cognoscitur. Bene diagnoscitur bene curatur*. We are deeply grateful to Cibas and Ali, founders and doyennes of this crucial thyroid lexicon invaluably stating "just keep study" instead of "just keep stu(ea)dy" for AUS of TBSRTC, which will be accepted worldwide.

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AUTHORS' CONTRIBUTIONS

IS: Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Project administration, Resources, Software, Validation, Visualization, Writing – original draft, Writing – review & editing. **DS:** Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

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