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Letter to editor

MAY 25-31, INTERNATIONAL THYROID AWARENESS WEEK & MAY 25, WORLD THYROID DAY, 2022: INDETERMINATION OF INDETERMINATE CYTOLOGY, AUS/FLUS, FN, SUSP, IN THYROIDOLOGY?

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May 25, World Thyroid Day, WTD, was officially accepted at the Annual General Meeting of the European Thyroid Association (ETA) before the September 2007 Congress in Leipzig, Germany. Although the date also refers to the establishment day of ETA in 1965, the aim is to create awareness about thyroid diseases on this day. After World Thyroid Day was first celebrated by ETA, in 2010, the American Thyroid Association (ATA) declared its support for this day. In addition, on May 25-31, International Thyroid Awareness Week, ITAW, is celebrated worldwide with the mentorship of Thyroid Federation International.

The "thyroid gland", commonly used terminology simply "thyroid", is an important endocrine organ localized in front of the neck, extending laterally on both sides. This butterfly-shaped and delicate (1) vital organ is responsible for many metabolic activities that are critical for the organism through the secretion of thyroid hormones. Therefore, "thyroid health" becomes extremely important. As such, thyroid gland disorders continue to affect all age groups globally and possess a wide spectrum of signs and symptoms. Among these, hypothyroidism, thyrotoxicosis with or without hyperthyroidism, goiter, congenital thyroid diseases, thyroiditis, retro/substernal goiter, follicular nodular thyroid disease with primary and secondary thyroid carcinomas are noteworthy. Family history, genetic and familial predisposition, radiation exposure to the head & neck and thorax region during the first two decades particularly in children and women (0-20 years of age), iodine deficiency, and some drugs such as amiodarone are known as the leading factors to the thyroid gland disorders. Nevertheless, the Public Health Update reported that more than 200 million people worldwide are facing thyroid disorders, and over 50% of them remain undiagnosed.

To achieve an accurate diagnosis for disorders and also carcinomas with their metastasis and recurrences before histopathology and during postoperative follow-up of this small, delicate, and papillon vital organ that can affect the whole organism: *(i) biochemical essays* (fT3, fT4, tT3, tT4, TSH, Tg, anti-Tg, anti-TPO, calcitonin, TSI/TRAb, US-guided-Tg/calcitonin washout); *(ii) imaging modalities* (sonography, strain, and shear wave elastography, SWE, scintigraphy and CT, MRI, 18-FDG PET/CT, and ^{131}I-WBS, when necessary) and (*iii) cytopathologic examinations* have been utilized. However, thyroid and neck US and cytopathological examination, in particular, still maintain their importance today. Indeterminate cytology (Category III, IV, V, The Bethesda System for Reporting Thyroid Cytopathology, TBSRTC, 1st and 2nd ed.s) (2, 3) in cytopathology and follicular nodular thyroid disease, in general, is one of the controversial topics which remains to be a significant topic for thyroidologists (4,5). The latest ATA guidelines, 2015 ATA Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer (6), recommended repeat FNA cytology, molecular tests with further surveillance or diagnostic surgery, considering worrisome sonographic and clinical features with patient preference, as novel approaches in Endocrine Surgery, Endocrine Pathology, and Thyroidology to resolve the challenging issue, Category III, TBSRTC (AUS/FLUS, atypia of undetermined/follicular lesion of undetermined significance), which is at the center of the aforementioned controversion *(Recommendation 15A, Weak recommendation, Moderate-quality evidence; 15B, Strong recommendation, Low-quality evidence).*

Of note, some authors and authorities have advocated the potential need for separation in TBSRTC in terms of Category III, AUS/FLUS (7, 8, 9). We very recently also postulated the so-called subdivision concept in Category III, TBSRTC, *id est*, *(i) Category II-IA*: AUS/FLUS without nuclear atypia (*AUS/FLUS wo NA*), and *(ii) Category IIIB*: AUS/FLUS with nuclear atypia (*AUS/FLUS w NA*) within the possible forthcoming 3rd ed., the 202X TBSRTC (10, 11). *Mater artium necessitas*. Therefore, a novel risk of malignancy, ROM, for each diagnostic category of possible forthcoming TBSRTC would selectively enrich the different management proposals in Thyroidology. As a matter of fact that this issue merits further investigation. *Bene diagnoscitur bene curatur.*. *Dum vivimus servimus*..

Keywords: Thyroid gland, World Thyroid Day, Awareness, International Thyroid Awareness Week, Indeterminate cytology, AUS/FLUS, TBSRTC, Endocrine Surgery, Endocrine Pathology, Thyroidologists, Thyroidology.

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