

A closer look at the size cutoff of 10 mm, below 10 mm in particular, in thyroidology: debate is still ongoing

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To date, the size cutoff of 10, 15, and 20 mm has been one of the most challenging issues in endocrine pathology, endocrine surgery, endocrinology, head and neck surgery, head and neck radiology, and thyroidology. Of note, the size cutoff of 10 mm particularly remains crucial in the evaluation and management of thyroid nodules with suspicious clinical findings, sonographic features, and/or cytology¹⁻⁴.

More recently, Borges et al.⁵ reported a valued research article, entitled “Thyroid nodules 1 cm or less are related to Bethesda System nondiagnostic and suspicious for malignancy categories.” In terms of the size cutoff of 10 mm, they sought to investigate the fine-needle aspiration (FNA) cytology of the nodules below and above 10 mm. They had analyzed 3,703 nodules, had undergone FNA during January 2016 to December 2019, and declared the size cutoff ≤ 10 mm was associated with cytology of nondiagnostic/unsatisfactory (prevalence ratio [PR]: 3.0, 95%CI 2.2–4.2) and suspicious of malignancy (PR: 1.6, 95%CI 1.1–2.4) for Categories I and V, *secunda edition*, The Bethesda System for Reporting Thyroid Cytopathology (TBSRTC), respectively⁵. It is important to note that the size cutoff of 10 mm, *per se*, has been set as not being underestimated gauge by some recommendations on the size selection criteria for the thyroid nodule, that is, FNA is recommended for the nodules:

1. Above 10 mm, solid and hypoechoic on ultrasound, the American Association of Clinical Endocrinologists (AACE)/Associazione Medici Endocrinologi (Italian Association of Clinical Endocrinologists or AME) (Grade B; best evidence level [BEL] 3);
2. >10 mm, high-risk category, the novel European Thyroid Imaging and Reporting Data System (EU-TIRADS 5);

3. ≥ 10 mm, possessing microcalcifications, the Society of Radiologists in Ultrasound (SRU);
4. ≥ 10 mm with microcalcifications and hypoechoic solid nodules, Revised American Thyroid Association (ATA) Management Guidelines for Patients with Thyroid Nodules and Differentiated Thyroid Cancer (2009); and
5. ≥ 10 mm with high-to-intermediate suspicion sonographic pattern, 2015 ATA Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer, last ATA guidelines (Recommendation 8, IID)^{1,3}. While the recommendations have emphasized the size cutoff of 10 mm^{1,3}, the study by Borges et al.⁵ provides data demonstrating that the nodules ≤ 10 mm were associated with Categories I and V, TBSRTC, 2nd ed. We have currently focused on thyroid nodules in suspense, 10–15 mm with repeat cytology of Category III, TBSRTC, whether or not necessitating a needful upgrade in thyroidology, has published in issue 2, volume 67, *Revista da Associação Médica Brasileira*⁶. In addition, we recently reported the size cutoff of 10 mm whether being prepotential for three diagnostic tools; strain elastography, ultrasound (US)-guided FNA cytology, and histopathology and our 3-year preliminary results revealed no significance of the thyroid nodules above 10 mm for indetermined and malignant cytology, Categories III, IV, V, and VI, of TBSRTC, with an additional calculation of area under the curve (AUC) as 0.517¹. Interestingly, our surveillance could not demonstrate the superior effect of the nodules above 10 mm on the prediction of Category V, TBSRTC, among the indetermined and malignant cytology¹, congruently

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the study by Borges et al.⁵, proclaiming the size cutoff ≤ 10 mm was associated with Category V, TBSRTC, 2nd ed. They suggested FNA as a feasible diagnostic tool even for nodules ≤ 10 mm, even utilizing more than one procedure⁵. In addition, we recently emphasized that even strain elastography might not be a beneficial tool to discriminate benign and malignant thyroid nodules with a size above 10 mm as the largest diameter³. Herewith, might it be propounded that a *strong* debate is still ongoing for the nodules below 10 mm of diameter?

Finally, we have an opinion that in case of waiting for such clarification, *grammatici certant*, we encourage appropriate discussion and incorporation of the thyroid nodules below 10 mm whether or not requiring the application of image-guided interventional diagnostic procedures^{7,8}. *Bene diagnosticur, bene*

curratur. As a matter of fact, this issue merits further investigation. We thank Borges et al.⁵ for their valuable study.

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AUTHORS' CONTRIBUTIONS

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