ISSN 2074-2908 | eISSN 2224-7750 | © CC-BY-NC-4.0 | Open access

LETTER TO EDITOR

To the Editor

Article by Awal TR, et al.1 entitled "Serum thyroid autoantibodies in malignant thyroid nodules" recommended two antithyroid antibodies (ATAbs) as a screening tool for a nodular thyroid malignancy despite their modest accuracies. Although the described diagnostic method (fine needle aspiration cytology, FNAC) for thyroid malignancy is practical, it is not definitive. Limitations of FNAC include not only inadequate specimens and sampling technique but also its inability to discriminate different overlapping pathologies such as atypia of undetermined significance or follicular lesion of undetermined significance, follicular neoplasm or suspicious for a follicular neoplasm.² Another important limitation of FNAC is its inability to diagnose lymphoma as it requires a tissue background. The thyroid lymphoma has a strong association with ATAbs that might be missed by the FNAC.³ The types of malignancy were not mentioned and the possibility of underdiagnosis among the controls could not be excluded.

Although overt thyroid disorders were excluded, subclinical thyroid disorders might be associated with more nodules and ATAb positivity.⁴ Moreover, ATAbs are common in the general population.⁵

The authors used laboratory cut-offs to define the ATAb positivity, which might not apply to our population.⁶ They did not perform their own receiver operating characteristics curve analysis to get the optimal cut-offs for the ATAbs in diagnosing nodular thyroid malignancy. Hence, the findings of this article should be interpreted with caution to apply in clinical practice.

Conflict of interest

I do not have any conflict of interest.

References

- Awal, TR, Nabila, SI, Yesmin, MS, Paul, D, Selim, S, Islam, N. Serum thyroid autoantibodies in malignant thyroid nodules. Bangabandhu Sheikh Mujib Medical University Journal. 2024 17(3), e74632. DOI: <u>https://doi.org/10.3329/ bsmmuj.v17i3.74632</u>.
- Baloch ZW, Sack MJ, Yu GH, Livolsi VA, Gupta PK. Fineneedle aspiration of thyroid: An institutional experience. Thyroid. 1998 Jul;8(7):565-569. DOI: <u>https:// doi.org/10.1089/thy.1998.8.565.</u>

- Kesireddy M, Lasrado S. Thyroid Lymphoma. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan. PMID: <u>31335002</u>.
- Rafiq-Uddin M, Kamrul-Hasan AB, Asaduzzaman M, Aminul-Islam AK, Islam M, Rauniyar BK, Hoque A, Mustari M, Fariduddin M, Hasanat MA. Antithyroid Antibody Status in Non-Pregnant Adult Bangladeshi Patients with Subclinical Hypothyroidism. Mymensingh Med J. 2020 Jan;29(1):156-161. PMID: <u>31015352</u>.
- Massoudi MS, Meilahn EN, Orchard TJ, Foley TP Jr, Kuller LH, Costantino JP, Buhari AM. Prevalence of thyroid antibodies among healthy middle-aged women. Findings from the thyroid study in healthy women. Ann Epidemiol. 1995 May;5(3):229-233. DOI: <u>https://doi.org/10.1016/1047-2797(94)00110-f</u>.
- Hollowell JG, Staehling NW, Flanders WD, Hannon WH, Gunter EW, Spencer CA, Braverman LE. Serum TSH, T(4), and thyroid antibodies in the United States population (1988 to 1994): National Health and Nutrition Examination Survey (NHANES III). J Clin Endocrinol Metab. 2002 Feb;87(2):489 -499. DOI: https://doi.org/10.1210/jcem.87.2.8182.

Md. Shahed Morshed 🐱 💿 Department of Endocrinology Bangabandhu Sheikh Mujib Medical University Dhaka, Bangladesh

Author's response

Dear Editor

We suggested that thyroglobulin antibody (TgAb) and thyroid peroxidase antibodies (TPOAb) may be considered for screening of nodular malignancy of thyroid as they had modest sensitivity (46% - 52%) and positive predictive value (65% - 71%) and high specificity (75% - 79%). However, these tests had modest accuracies (61% - 65%), as the learned colleague has pointed out. We agree that FNAC has its inherent limitations. It is well known that TgAb and TPOAb and FNAC are cost effective and can be easily done in reserve constrained settings.

Considering the above facts, and acknowledging the limitation of the FNAC, it can be used for screening purpose till a cheaper and easily easier alternative is available.

Towhidur Rahman Awal 🔀 ঢ Department of Laboratory Medicine Bangabandhu Sheikh Mujib Medical University Dhaka, Bangladesh