# Is the neutrophil-to-lymphocyte "ratio" nale from head and neck to thyroidology for thyroidologists?: promise or passé?

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#### Dear Editor,

We read with a great deal the research article entitled "Is the neutrophil-to-lymphocyte ratio a marker for differentiating between benign and malignant submandibular gland masses?" by Bora<sup>1</sup>. This research of high quality seems to demand portraying to evaluation of the effect of the neutrophil-to-lymphocyte ratio (N/L) on distinguishing benign from malignant masses in the submandibular triangle of the head and neck which has recently been published in the 69th volume of Rev Assoc Med Bras<sup>1</sup>. The author stated that he retrospectively evaluated 48 cases who had undergone surgery for submandibular gland masses with the histopathology of sialolithiasis, sialadenitis, pleomorphic adenoma<sup>2-4</sup>, and malignant conditions. He deduced and emphasized that N/L, per se, can be used as a biomarker in submandibular gland masses and has prognostic significance in malignant masses. Moreover, he proposed that N/L can be utilized as a biomarker beyond fine needle aspiration cytology. Thereto, he highlighted N/L as being proven in distinguishing between benign and malignant nodules in patients<sup>1</sup> with suspicious thyroid nodules<sup>1,5-17</sup>. Nevertheless, at least a minimal debate is still ongoing on an accurate decision on N/L whether it is a biomarker in discrimination of malignity or not. Exempligratia, we reported that N/L was not a convenient and favorable biomarker in forecasting thyroid malignancy18 in thyroidology19-29. Of note, N/L, particularly in the thyroid with head and neck providers, the growing spectrum of clinical management for challenging conditions remains, especially for thyroidologists and thyroid health as different peas in a pod. *Fide, sed cui vide.* As a matter of fact, this issue merits further investigation. We thank Bora¹ for his valuable study.

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#### **AUTHORS' CONTRIBUTIONS**

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## **REFERENCES**

- Bora A. Is the neutrophil-to-lymphocyte ratio a marker for differentiating between benign and malignant submandibular gland masses? Rev Assoc Med Bras (1992). 2023;69(11):e20230738. https://doi.org/10.1590/1806-9282.20230738
- Sengul I, Sengul D, Aribas D. Pleomorphic adenoma of the lower lip: a rare site of location. N Am J Med Sci. 2011;3(6):299-301. https://doi.org/10.4297/najms.2011.3299
- 3. Sengul I, Sengul D. Pleomorphic adenoma of the lower lip: a review. N Am J Med Sci. 2011;3(12):536-9. https://doi.org/10.4297/najms.2011.3536
- Sengul I, Sengul D, Soares Júnior JM. A closer look at heterotopic sites of pleomorphic adenoma, particularly in women: fide, sed cui vide? Rev Assoc Med Bras. 2024;e20231193.
- Sengul I, Sengul D. Apropos of quality for fine-needle aspiration cytology of thyroid nodules with 22-, 23-, 25-, even 27-gauge needles and indeterminate cytology in thyroidology: an aide memory. Rev Assoc Med Bras (1992). 2022;68(8):987-8. https:// doi.org/10.1590/1806-9282.20220498
- Sengul D, Sengul I. Association between Tsukuba elasticity scores 4 and 5 on elastography and Bethesda undetermined cytology on US-guided FNA with 27-G needle, verified by histopathology: a cut-off point of 20 mm of diameter designated for thyroid nodules. J BUON. 2019;24(1):382-90. PMID: 30941995
- Sengul I, Sengul D. Hermeneutics for evaluation of the diagnostic value of ultrasound elastography in TIRADS 4 categories of thyroid nodules. Am J Med Case Rep. 2021;9(11):538-9. https://doi. org/10.12691/ajmcr-9-11-5
- Sengul D, Sengul I. Reassessing combining real-time elastography with fine-needle aspiration biopsy to identify malignant thyroid nodules. Am J Med Case Rep 2021;9(11):552-3. https://doi. org/10.12691/ajmcr-9-11-9.
- Sengul I, Sengul D. Comment on: "evaluating treatment options in managing thyroid nodules with indeterminate cytology of TBSRTC in thyroidology: addendum aut non?". Rev Assoc Med Bras (1992). 2022;68(7):973-4. https://doi.org/10.1590/1806-9282.20220383
- Sengul I, Sengul D. Emphasis on the novel age cutoff, 55 years, for postsurgical adjuvant radioiodine as consideration for American Thyroid Association ¾ low-intermediate risk differentiated thyroid carcinoma. Rev Assoc Med Bras (1992). 2021;67(4):485-6. https:// doi.org/10.1590/1806-9282.20201013
- Sengul I, Sengul D. Notes on "elastography for the diagnosis of highsuspicion thyroid nodules based on the 2015 American Thyroid Association guidelines: a multicenter study". North Clin Istanb. 2020;8(1):109-10. https://doi.org/10.14744/nci.2020.74240
- Sengul I, Sengul D. Focusing on thyroid nodules in suspense: 10-15 mm with repeat cytology, category III, the Bethesda system for reporting thyroid cytopathology, TBSRTC. Rev Assoc Med Bras (1992). 2021;67(2):166-7. https://doi.org/10.1590/1806-9282.67.02.20200828
- 13. Sengul I, Sengul D. Blurred lines for management of thyroid nodules in the era of atypia of undetermined significance/ follicular lesion of undetermined significance: novel subdivisions of categories IIIA and IIIB in a possible forthcoming the Bethesda system for reporting thyroid cytopathology, 3rd edition; amending versus unnecessary? Rev Assoc Med Bras (1992). 2021;67(10):1385-6. https://doi.org/10.1590/1806-9282.20210763
- Sengul I, Sengul D. May 25-31, International thyroid awareness week & May 25, World Thyroid Day, 2022: indetermination of indeterminatecytology, AUS/FLUS, FN, SUSP, in thyroidology? Sanamed. 2022;17(2):109-10. https://doi.org/10.5937/sanamed.17-38153

- 15. Sengul D, Sengul I. Subdivision of intermediate suspicion, the 2021 K-TIRADS, and category III, indeterminate cytology, the 2017 TBSRTC, 2nd edition, in thyroidology: let bygones be bygones? Ultrasonography. 2023;42(4):600-1. https://doi.org/10.14366/usg.23113
- **16.** Sengul I, Sengul D. The 2023 Bethesda system for reporting thyroid cytopathology: novi sub sole, subdivision is no more debatable, in thyroidology. Rev Assoc Med Bras (1992). 2023;69(12):e20231124. https://doi.org/10.1590/1806-9282.20231124
- 17. Sengul I, Sengul D. Evangely, the subcategorization has been announced in the 2023 Bethesda system for reporting thyroid cytopathology: let bygones be bygones in Thyroidology! Rev Assoc Med Bras (1992). 2024;70(3):e20231511. https://doi.org/10.1590/1806-9282.20231511.
- 18. Sengul D, Sengul I. Are there any variation in neutrophil lymphocyte ratio, mean platelet volume, and platelet count between papillary thyroid cancer and benign nodular thyroid diseases? Sanamed. 2018;13(1):11-6. https://doi.org/10.24125/sanamed.v13i1.209
- 19. Sengul D, Sengul I. Is there any link between a kind of thyrocyte dysfunction, hypothyroidism, and inflammatory hematologic parameters in the cases having the benign thyroid nodules?: a 5-year single-centre experience. Sanamed. 2018;13(1):35-40. https://doi.org/10.24125/sanamed.v13i1.211
- 20. Sengul I, Sengul D, Veiga ECA. Revisiting optimal needle size for thyroid fine-needle aspiration cytology: not much finer, less non-diagnostic? Rev Assoc Med Bras (1992). 2021;67(9):1213-4. https://doi.org/10.1590/1806-9282.20210671
- 21. Sengul D, Sengul I. A vignette epexegesis of a model for training sonography-guided fine-needle aspirations in thyroidology and thyroidologists: think twice with needle size? Rev Assoc Med Bras (1992). 2023;69(8):e20230465. https://doi.org/10.1590/1806-9282.20230465
- Sengul D, Sengul I. Minimum minimorum: thyroid minimally invasive FNA, less is more concept? Volens nolens? Rev Assoc Med Bras (1992). 2022;68(3):275-6. https://doi.org/10.1590/1806-9282.20211181
- 23. Sengul I, Sengul D. Delicate needle with the finest gauge for a butterfly gland, the thyroid: is it worth mentioning? Sanamed. 2021;16(2):173-4. https://doi.org/10.24125/sanamed.v16i2.515
- 24. Sengul I, Sengul D. Proposal of a novel terminology: minimally invasive FNA and thyroid minimally invasive FNA; MIFNA and thyroid MIFNA. Ann Ital Chir. 2021;92:330-1. PMID: 34312332
- 25. Edwin NO, Odurukwe OU, Ijeoma AM, Obianyido HO, Ekene EC, Ikegwonu IC. The importance of laboratory Investigation of thyroid hormones in various thyroid dysfunctions in enugu South Eastern Nigeria. Asian J Res Rep Endocrinol. 2018;1(1):1-9.
- 26. Sengul I, Sengul D. Big gain, no pain: thyroid minimally invasive FNA (Thy MIFNA): proposal of novelty in terminology. Rev Assoc Med Bras (1992). 2021;67(12):1749-50. https://doi.org/10.1590/1806-9282.20210922
- 27. Sengul D, Sengul I, Soares Junior JM. Repercussion of thyroid dysfunctions in thyroidology on the reproductive system: conditio sine qua non? Rev Assoc Med Bras (1992). 2022;68(6):721-2. https://doi.org/10.1590/1806-9282.20220255
- Emmanuel I, Aliyu MR, Ochigbo A, Akpa P, Barnabas Mandong J, Mafala Mandong B. Disease of the thyroid gland: a histopathological perspective. Asian J Res Rep Endocrinol. 2018;1(1):32-40.
- 29. Sengul D, Sengul I. World Thyroid Day 2023 in thyroidology: no overlook thyroid dis-eases to opt for "thyroid health" purposes. Rev Assoc Med Bras (1992). 2023;69(10):e20230864. https://doi.org/10.1590/1806-9282.20230864

