

Fatma Dilek DELLAL¹, Husniye BASER¹, Didem OZDEMIR², Aydan KILICARSLAN³, Reyhan ERSOY², Bekir CAKIR²

¹Ataturk Education and Research Hospital, Department of Endocrinology and Metabolism, Ankara, Turkey

²Yildirim Beyazıt University, Faculty of Medicine, Department of Endocrinology and Metabolism, Ankara, Turkey

²Yildirim Beyazıt University, Faculty of Medicine, Department of Pathology, Ankara, Turkey

Aim

➤ Exophytic nodule refers to a nodule that sticks out of the normal thyroid boundary/outline. Other definition is a nodule with an acute angle between the lesion and adjacent thyroid capsule. Exophytic configuration is not known risk factor for thyroid cancer. We aimed to compare ultrasonographical features and cytopathologic results of exophytic and non-exophytic thyroid nodules.

Material ve Method

➤ Forty-four exophytic and 34 non-exophytic thyroid nodules in which fine needle aspiration biopsy was indicated throughout 3 months were evaluated prospectively. Mean nodule size was similar in two groups (18.83 ± 8.71 mm and 15.28 ± 7.57 mm, $p=0.173$). The ratio of presence of peripheral hypoechoic halo and marginal irregularity was also similar in both group ($p=0.512$ and $p=0.153$, respectively). Microcalcification was present in 21.4% and 29.4% of exophytic and non-exophytic nodules, respectively ($p=0.424$). Macrocalcification was detected in 4.5% of exophytic and 11.8% of non-exophytic nodules ($p=0.111$). 47.6% of exophytic nodules was hypoechoic and 52.4% was isoechoic. 47.1% of non-exophytic nodules was hypoechoic and 52.9% was isoechoic. Color flow doppler pattern was defined as non-vascular, peripheral, central, or of mixed type and was similar in both groups ($p=0.138$). Cytopathologic results of exophytic nodules were 75% benign, 4.3%

follicular lesion or atypia with undetermined significance, 2.3% suspicious for malignancy, 2.3% malign, and 15.9% non-diagnostic. In non-exophytic group, 79.4% was benign and 20.6% was non-diagnostic ($p=0.497$).

Conclusion

➤ Exophytic configuration of thyroid nodules was rarely investigated as a possible predictive feature for malignancy in the literature. In the literature, only one study evaluated exophytic feature of thyroid nodules in neck CT (1). They reported malign thyroid nodules had more frequently exophytic configuration than benign ones without statistical significance. In our study, we did not find any difference in terms of ultrasonographical features and cytological results between exophytic and non-exophytic thyroid nodules. However, more comprehensive studies with larger sample sizes are needed to clarify any possible relation between exophytic configuration and malignancy.

References

➤ Kim DW, Jung SJ, Baek HJ. Computed tomography features of benign and malignant solid thyroid nodules. Acta Radiol. 2014 Oct 7. pii: 0284185114552216. [Epub ahead of print]

