



Cytologically indeterminate thyroid nodules: association of tumor size with histologic and clinical outcomes

Editors
Renato Cozzi, Piero Baglioni

Current guidelines from the American Thyroid Association (ATA) recommend total thyroidectomy over lobectomy for nodules >4 cm. However, few of the tumors thus detected exhibit an aggressive biological behavior. This recommendation was recently tested in a retrospective clinical and histological analysis of 652 nodules (589 patients) (1). All the nodules were cytologically indeterminate (atypia, undetermined follicular lesion, follicular or Hürthle cell tumor, corresponding to class Tir 3A e Tir 3B of the Italian classification). 106 nodules were >4 cm of diameter.

Results

Malignancy was confirmed in 173/652 (26.5%) nodules at histology.

Nodule stratification based on size (< or >4 cm) showed:

- No difference in cancer prevalence.
- Weak association between size and metastases.
- No difference in relapse and excellent response to treatment at 36 months (median) in over 80% of patients in both groups.

Conclusions

This study confirms the lack of association between size of the nodule (>4 cm) and risk of cancer, metastatic potential, and worsening prognosis. Based on this data, the authors suggest lobectomy rather than total thyroidectomy also for cytologically indeterminate nodules >4 cm. This approach might reduce surgical complications and prevent the need for life-long thyroxine replacement. However, it remains essential that each case be assessed individually before deciding the extent of the surgery.

References

1. Valdebarano P, Khazai L, Thompson J, et al. Association of tumor size with histologic and clinical outcomes among patients with cytologically indeterminate thyroid nodules. *JAMA Otolaryngol Head Neck Surg* [2018, 144: 788-95](#).