



NIFTP: limits of cytological diagnosis

Editors

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The diagnosis of “*non-invasive follicular thyroid neoplasms with papillary-like nuclear features*” (NIFTP) was first introduced with the aim to resolve the long-standing debate on well-capsulated papillary carcinomas without histological signs of aggressiveness. Individual studies, systematic reviews and meta-analyses have since tried to verify the impact of this diagnostic category on the incidence and prevalence of malignant lesions, and the reliability of their cytological diagnosis.

The systematic review by Bongiovanni et al (1) is based on 15 selected papers representing 915 cases of NIFTP (all categorized according to the Bethesda system). On cytology, 51% of the lesions were in the «indeterminate» group (AUS/FLUS o FN/SFN), while 24% were in the «suspicious» group.

The results of the systematic review seem to show that:

- Cytology is not conclusive in about 75% of these lesions.
- Diagnosis of NIFTP is not possible based on current cytology criteria.
- Interpretation of all nodules with suspicious or indeterminate cytology must be integrated by clinical and ultrasound data, and histology results in cases undergoing surgery.

These data support the belief that NIFTP can be diagnosed only on histology, in analogy to follicular lesions with minimal capsular invasion.

Discussion

Several leading experts (2,3) maintain that some histological series of NIFTP adopted non-selective criteria, which may explain reports of lymph node metastases in association with NIFTP. This may also justify the unexpectedly high prevalence of NIFTP, up to 15-20% in comparison to papillary carcinomas, which may curtail the benefit of the NIFTP on overtreatment.

These data suggest the need for better standardization of both cytological and histological diagnostic criteria to define the role of the cytology in the diagnostic pathway and make the results more consistent. At present, the cytological diagnosis of NIFTP appears still uncertain and may lead to non-conclusive reports.

References

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3. Lloyd RV, Asa SL, LiVolsi VA, et al. The evolving diagnosis of noninvasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP). *Hum Pathol* [2018, 74: 1-4](https://doi.org/10.1089/thy.2018.0394).