

Fine-needle aspiration cytology of the thyroid: screening or diagnostic test?

To the Editor—We read with interest the paper on fine-needle aspiration cytology (FNAC) of thyroid nodules in a regional hospital setting by Cheung et al.¹ We reported our findings in a private setting in this journal in 1999.² It is difficult to compare the two studies due to the exclusion of follicular tumours from their statistical analysis. Unlike FNAC of other organs, FNAC of the thyroid should be regarded as a screening test to determine whether a patient needs surgery rather than a diagnostic test, though some cases can be confidently diagnosed as carcinoma on FNAC. Since all lesions with a cytological diagnosis of follicular and Hurthle cell lesions would be operated on to exclude malignancy, their reason for excluding these is difficult to understand. If their cases were classified as non-neoplastic (hyperplastic nodules, thyroiditis, etc) or neoplastic (adenoma, carcinoma), as in our study, the sensitivity, specificity, positive predictive value, and negative predictive value would be 97.6%, 48.1%, 75.4%, and 92.6% respectively compared with 56%, 90%, 74%, and 80% in our study. Many factors are responsible for the widely differing results reported by

other centres as pointed out by Professor Ng.³

Cheung et al¹ found that age younger than 40 years and the presence of atypical cells were predictive of malignancy, but we found that lesions greater than 3 cm also predicted malignancy.

It is not uncommon to encounter epithelial cells with degenerative nuclear atypia in a nodular goitre⁴ and significant nuclear abnormalities may also be seen in follicular adenomas⁵ and Hashimoto's thyroiditis. It is therefore surprising to note that atypical cells were predictive of malignancy in their report.

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