

False-negatives in thyroid nodule aspiration cytology

To the Editor—We congratulate Cheung et al¹ for providing local data on the accuracy of fine-needle aspiration cytology (FNAC) of non-toxic thyroid nodules. In 2003, we retrospectively analysed the results of 192 FNAC of thyroid nodules performed in Queen Elizabeth Hospital between January and June 2001. Forty-three of those patients underwent thyroidectomy and a comparison of the histopathological findings with the FNAC results yielded false-positive and false-negative rates of 0% and 5% respectively, similar to Cheung et al's series. As in their series, the retrospective nature of our analysis precluded prospective monitoring of thyroid nodule growth. The false negative rate could be an underestimation, since our mean follow-up period was only 24 months after FNAC.

Male gender, age extremes, a history of head and neck radiation, and a family history of thyroid cancer are known risk factors for thyroid malignancy,² although their positive predictive power tends to be low. Symptoms of local invasion (eg dysphagia, hoarseness of voice) and regional adenopathy are only present in advanced disease. In our experience, the most important clue suggesting malignancy is increasing nodule size. We recently encountered two patients with no risk factors but progressive increases in nodule size. In one, the nodule increased from 2 cm to 3 cm over 6 months so was operated on despite a FNAC finding of haemorrhagic degeneration of undetermined nature. Intra-operatively,

an enlarged jugular lymph node was identified and frozen section confirmed papillary carcinoma with lymph node metastases. The second patient complained of progressive increase in a thyroid mass for 3 months. A 3-cm rubbery thyroid nodule was palpable but there was no cervical lymphadenopathy. Ultrasonography revealed a 2 x 2 x 3 cm solitary right thyroid nodule and FNAC showed a colloid nodule with degeneration. On thyroidectomy he was found to have papillary cancer with an intact capsule.

In follicular tumours, malignant potential has been shown to increase as thyroid nodules grow larger than 4 cm³; however no data are available for other types of thyroid tumours. These two cases illustrate that an increase in nodule size should alert us to possible malignancy. Regardless of FNAC findings, patients with thyroid nodules must be monitored.

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