

## **FINE NEEDLE ASPIRATION AND THYROID MALIGNANCY**

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### **Abstract**

Although little doubt exists about the pivotal role of fine-needle aspiration (FNA) biopsy in the preoperative diagnosis of thyroid cancer, each step in the subsequent management gives rise to controversy. Fine needle aspiration cytology has three limitations. Firstly, about 20% of samples are initially unsatisfactory, although repeat sampling increases the likelihood of obtaining adequate samples. Partly cystic or cystic lesions account for 20% of thyroid nodules and often yield insufficient cells for diagnosis. Neither the size of the cyst or the colour of the aspirate is discriminatory. The cyst should be aspirated to dryness but generally recurs. If it does recur surgery should be considered. Secondly, follicular adenomas cannot be distinguished from carcinomas; 15% will be malignant. Cellular follicular lesions are also difficult to classify. Follicular lesions must be regarded as suspicious and management is controversial. Age, clinical features, and discussion with the patient will influence the decision on surgery. Many centres, however, suggest surgical excision of all indeterminate follicular lesions to make a definitive histological diagnosis. Finally, although most nodules are labelled as benign a major concern is the number of false negatives—missed carcinomas. Follow up of those labelled as benign on previous fine needle aspiration cytology showed 1% to be malignant. Routine follow up fine needle aspiration cytology is not indicated, and clinical assessment at 12 months, with discharge of those without worrying clinical features, is reasonable. The optimum diagnostic strategy for the euthyroid patient with nodular thyroid disease is still a matter for debate. There is agreement, however, that fine needle aspiration cytology and a first line test of thyroid function are cornerstones of investigation.

**Key words:** Thyroid Nodular Disease, Fine-Needle Aspiration