

Final Diagnosis of Solitary Thyroid Nodule: Cytology, Histology or Molecular Genetics?

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Fine needle aspiration (FNA) is an essential preliminary investigation in the investigation of a solitary thyroid neoplasm which helps to triage patients with malignancies for timely clinical management whilst avoiding unnecessary surgery in those with non-neoplastic nodules. This lecture will briefly highlight advantages and disadvantages of the current Bethesda system for reporting thyroid cytopathology. Histology, is considered as the gold standard for diagnosis of solitary thyroid nodules. With the emergence of recently described entities such as non-invasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP), histological diagnosis of solitary thyroid neoplasms with focal papillary-like nuclear features or equivocal nuclear features has become more complex, but clinically relevant. This is because NIFTP will not require radioiodine therapy or completion lobectomy in patients who have had only a lobectomy. The role of molecular genetics in cases of difficult histological diagnosis will be discussed.