



The Introduction of Endocrinology-Radiology MDT Meeting Significantly Reduced Inadequacy Rates of Thyroid Fine Needle Aspiration in a University Teaching Hospital

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OBJECTIVES

A weekly Endocrinology-Radiology multidisciplinary (MDT) meeting has been recently introduced in our hospital to discuss indications and suitability of thyroid nodules for Fine needle aspiration (FNA). In a recent 5 years retrospective audit, 80% of thyroids FNAs were performed under Ultrasound (US) guidance in our institution with an overall inadequacy (Thy1) rate of 11.1%. The aim of this study was to assess whether such an intervention can improve percentage of FNAs done under US guidance and reduce inadequacy rates.

METHODS

A retrospective review of all computerised meeting records held in 2013. Cytological outcomes for those undergone FNA were obtained from pathology laboratory system. Cytology results were placed into 5 diagnostic categories according to the RCPATH criteria ¹. Cytological specimens were graded as Thy1 if they were insufficient or non diagnostic, Thy2 if they were benign, Thy3 if they showed follicular lesion or follicular neoplasm, Thy4 if they were suspicious for malignancy and Thy5 if they were diagnostic for malignancy. Outcomes were compared to the results of a local 5 years retrospective audit prior to the introduction of this meeting.

Figure 1: Outcomes of MDT Discussion.

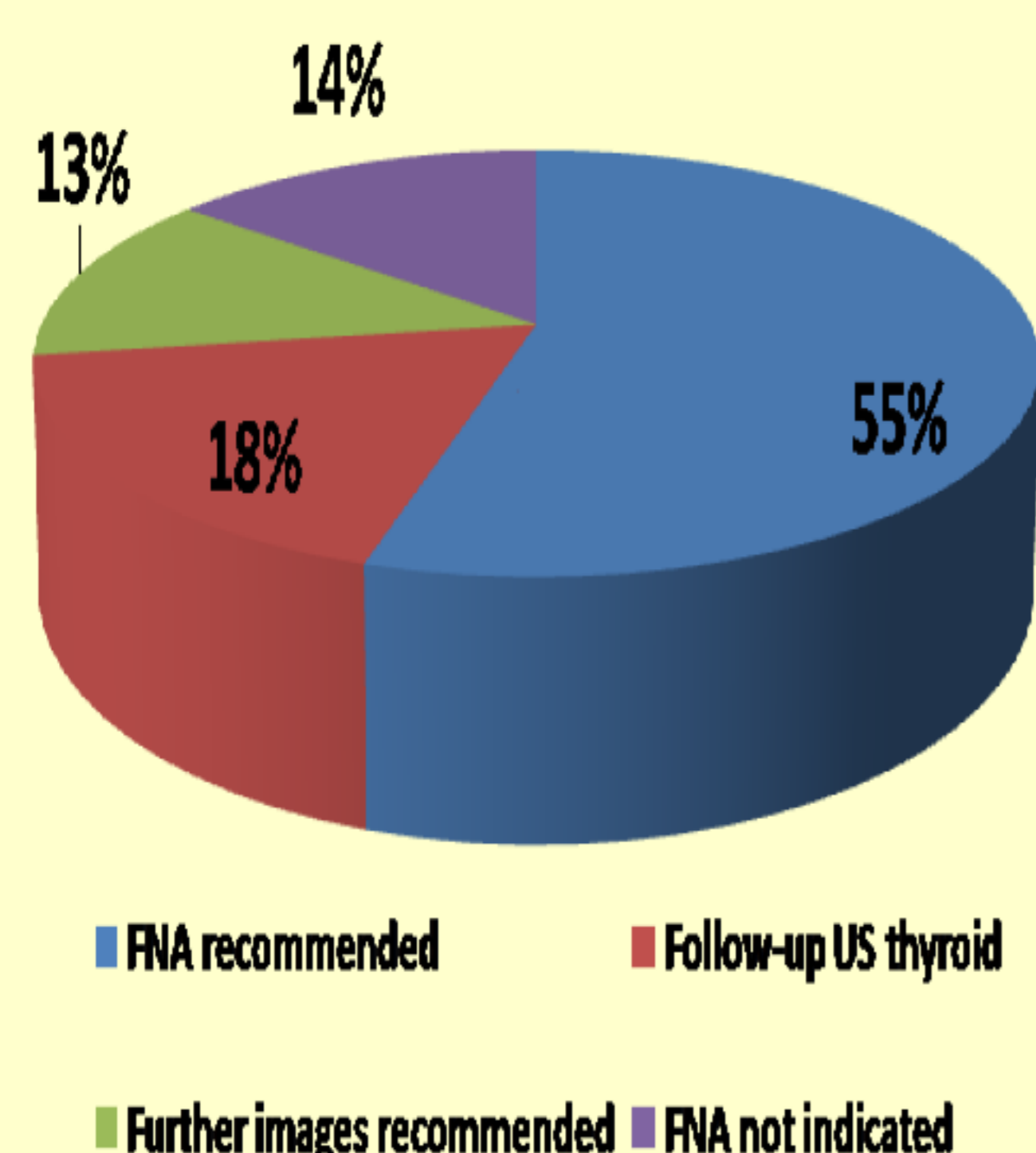


Figure 2: Cytology outcomes according to THY classification.

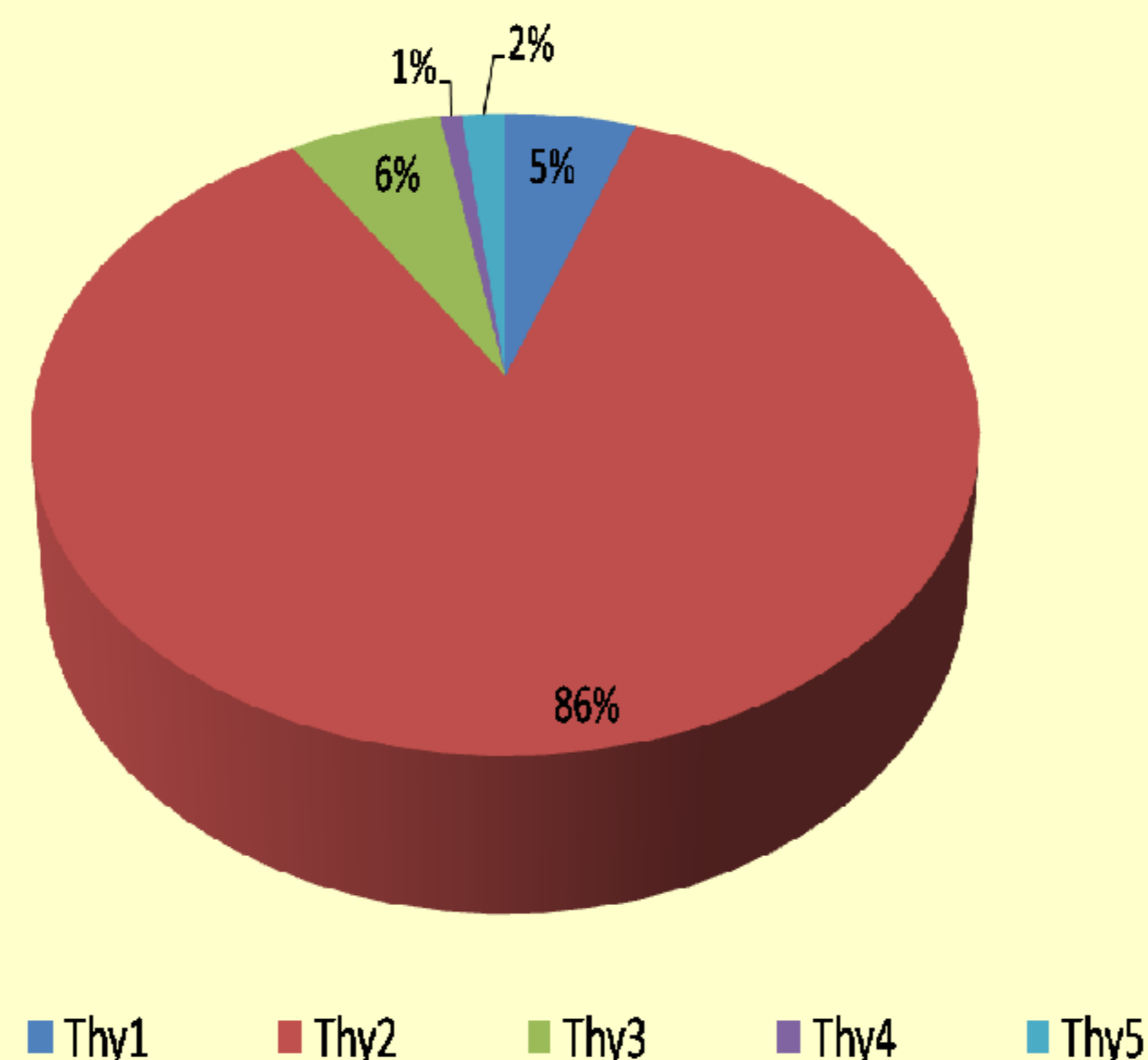


Table 1: Accuracy of FNA following the introduction of Endocrinology-Radiology MDT

	Before the introduction of MDT	After the introduction of MDT	P Value
% FNA performed under US guidance	80% (423/531)	100% (113/113)	
In adequacy rate (% THY1)	11.1% (63/567)	5.3% (6/113)	P < 0.05

RESULTS

216 thyroid cases were discussed at our MDT meetings between January and December 2013, of those, FNA was recommended in 118 (54.6%), Follow-up US thyroid in 39 (18%), and further images (mainly isotope uptake) in 28 (13%) cases. FNA was not indicated in 31 (14.3%) of cases most of them were small (<1cm), stable, or hot nodules. 113 thyroid nodules were aspirated following MDT discussion. All FNAs (100%) were performed under US guidance with pathology in attendance to review adequacy of samples. The cytology outcomes were as follows: Thy1 (non-diagnostic) in 6 (5.3%) cases, Thy2 (benign) in 97 (85.8%) cases, Thy3 (follicular lesion/neoplasm) in 7 (6.2%) cases, Thy4 (suspicious for malignancy) in 1 (0.9%) and Thy5 (malignant) in 2 (1.8%) cases. Inadequacy rate for FNAs performed following discussion at MDT was significantly lower (5.3%) compared to the overall inadequacy rate of 11.1% reported in the previous audit period (p<0.05).

CONCLUSIONS

In conclusion, the introduction of the Endocrinology-Radiology MDT in our institution, resulted in a 52.3% reduction of thyroid FNA inadequacy rate. This MDT proved to be a cost effective intervention in reducing inadequacy rate, hence further costs. All thyroid nodules should be discussed at such meeting to assess suitability for FNA.

Reference: 1. Cross P, Chandra A, Giles T, et al. Guidance on the reporting of thyroid cytology specimens. London: Royal College of Pathologists; November 2009.

