

FINE NEEDLE ASPIRATION VERSUS CORE NEEDLE BIOPSY OF THYROID NODULES AT CHARLES LEMOYNE HOSPITAL

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Background/Purpose: Historically, both fine-needle aspiration (FNA) and core needle biopsy (CNB) have been done in our center for evaluation of thyroid nodules.

Objective: Determine the pathological correlation and compare the performance of thyroid nodules biopsies.

Methods: We conducted a retrospective analysis of all thyroidectomy cases from 2005 to 2011 that had a pre-operative biopsy in our center.

Results: We found 69 cases with either pre-op FNA (n=68) or CNB (n=43). Only 43/68 (63,2%) of FNAs were ultrasound-guided compared to all CNBs. A *benign* diagnosis was found in 15/68 (22,1%) FNAs and only 1/43 (2,3%) CNB, and there was only one false-negative FNA result that was a papillary cancer. *Follicular lesions of undetermined significance (FLUS)* accounted for 29/68 (42,6%) of FNAs results compared to 33/43 (76,7%) of CNBs. All FNAs with *FLUS* were also designated as *FLUS* based on the concomitant CNBs. The rate of malignancy found in FNAs with *FLUS* results was slightly higher than CNBs: 5/29 (17,2%) vs 4/33 (12,1%), and the pathological diagnosis were 8 follicular and 1 papillary cancer. *Malignant* or *suspicious for malignancy* results were all true positive. We obtained more *non-diagnostic* results from FNAs (20,6% FNAs vs 9,3% CNBs). Only one case was reclassified as *follicular neoplasm* based on the concomitant CNB. All the others were *FLUS*.

Discussion & Conclusion: FNA seems superior to CNB since it establishes more *benign* diagnosis, less *FLUS* and is a less invasive procedure carried out at a lower cost. Moreover, CNB did not increase diagnostic yield of FNAs with *non-diagnostic* or *FLUS* results.