

MCGILL THYROID NODULE SCORE – DOES IT HELP WITH INDETERMINATE FINE NEEDLE ASPIRATION CYTOLOGY?

Varshney, Rickul¹; Zawawi, Faisal¹; Hier, Michael¹; Mlynarek, Alexander¹; Forest, Veronique¹; Tamilia, Michael¹; Payne, Richard¹

¹Department of Otolaryngology – Head & Neck Surgery, McGill University, Montreal, QC, Canada

Background/Purpose: Ultrasound guided fine-needle aspiration (USFNA) biopsy of thyroid nodules often gives the result of indeterminate pathology. Thyroid specialists are often faced with difficult management decisions. The aim of this study is to assess the benefits of the McGill Thyroid Nodule Score (MTNS) in this group of patients.

Methods: A retrospective study was performed comparing the USFNA results, MTNS scores, and post-operative pathology diagnoses of thyroid nodules between 2010 and 2012. Pre-operative USFNA results were divided into benign, indeterminate, and malignant/suspicious for malignancy subgroups. Post-operative results were separated into benign and malignant groups. Indeterminate USFNA consisted of follicular lesions/neoplasms, and hurthle cell lesions/neoplasms.

Results: There were a total of 559 patients (47 benign USFNA, 364 indeterminate USFNA, and 148 malignant/suspicious for malignancy USFNA). In the indeterminate group, 211 patients had a benign final pathology and 153 patients had malignancy. The median and average MTNS scores for the benign group were 7 and 7.5, respectively (malignancy risk of 32%). The median and average MTNS scores for the malignancy group were 9 and 9.5, respectively (malignancy risk of 63%). This difference was statistically significant ($p < 0.05$) and was calculated using the chi-square method.

Discussion & Conclusion: This study indicates that the MTNS score can assist thyroid specialists in decision-making when dealing with patients with thyroid nodules of indeterminate pathology on USFNA.