

IS AGE ASSOCIATED WITH RISK OF MALIGNANCY IN THYROID CANCER?

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Background/Purpose: Many predictive and prognostic (AMES, AGES, or MACIS) models for thyroid cancer have been proposed. Age is considered in all of them.

Objective: To establish whether patients' age correlates with the rate of malignancy, size, and aggressiveness of the thyroid cancer.

Methods: A retrospective analysis of 1022 patients undergoing consecutive thyroidectomy. The patients were divided based on age at the time of surgery (<45 years old (yo) and ≥ 45 yo). Data regarding size of thyroid nodules, presence of lymph node (LN) metastasis, and final thyroid pathology including the presence of extrathyroidal extension (ETE) were retrieved.

Results: There were 396 patients <45yo and 626 patients ≥ 45 yo. The rates of malignancy were 67.2% and 68.7% respectively ($p=0.111$). Patient's >45yo show a trend toward increased presence of LN mets (19.4% vs. 14.9%; $p=0.067$). In addition, male patient's were more often associated with LN metastasis (18.9% vs. 15.8%; $p=0.0517$). When patient's were stratified for age patient's >80yo demonstrate increased incidence of LN metastasis compared to the rest of patient population (40.0% vs. 16.2%; $p=0.048$). There was no significant difference in regards to size of thyroid nodules ($p=0.265$) and the rate of ETE (16.2% vs. 16.5%; $p=0.971$).

Discussion & Conclusion: In this study, rate of malignancy and ETE were independent of the age of the patient. While patients <45 demonstrate a trend towards increased LN metastasis. Furthermore, LN metastasis is more often associated with males and patient's >80yo.