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Title: Evaluation of the International Medullary Thyroid Carcinoma Grading System in an Irish Cancer Centre

Body: Background

Medullary Thyroid Carcinoma (MTC) is a rare, differentiated neuroendocrine carcinoma originating from the parafollicular cells. Until recently, no internationally recognized grading system was available, therefore the International Medullary Thyroid Carcinoma Grading System (IMTCGS) was proposed on an international consensus meeting. This presentation shares our findings on retrospectively graded MTC histologic specimens in an Irish head and neck cancer centre and compares the results with international data.

Methods

Histologic specimens of 19 adult patients diagnosed with MTC between 2003-2023 were retrospectively graded according to IMTCGS featuring the Mitotic Index(MI), Ki67 immunostaining(Ki67) and microscopic presence of Tumour Necrosis(TN), and the specimens were categorized into High Grade and Low Grade groups. The proportion of each group was compared with international data.

Results

Based on the IMTCGS proposed features a total of 5 patients were classified as high grade (26.3%), while 14 patients were categorized as low grade (73.7%). These findings correlate with the data of the major, multicentre, international validity study on the IMTCGS (24.8% High-grade, 75.2% Low-grade).

Conclusion

The concordance between our findings and the international findings reinforces the validity of IMTCGS in our cohort. Therefore, we suggest considering the use of IMTCGS for standardized risk assessment in Ireland.

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