Predicting Survival of Small Intestine Neuroendocrine Tumors (NETs): Experiences from a Major Referral Center

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BACKGROUND

• Small intestine NETs (SI-NETs) account for 41.8% of all gastrointestinal malignancies
• There is lack of formal prognostic tools for guiding management decisions and for counseling patients
• The NET nomogram, developed by Modlin et al, has prognostic significance but has not been validated in the US
• This is the first external validation of this nomogram in US patients from an urban tertiary referral center

METHODS

• Retrospective chart review of SI-NET patients at Mount Sinai's Center for Carcinoid and NETs
• Inclusion: diagnosis 2005-2017, biopsy confirmation, surgical resection
• Variables were selected and categorized according to the methods outlined by Modlin et al
• Wilcoxon test and Cox regression was used to validate the nomogram

RESULTS

• Our analysis of 121 patients showed that the NET nomogram significantly predicted survival (p=0.01)
• Wilcoxon test demonstrated statistically significant differences in nomogram scores between alive and deceased patients (p=0.0096)
• The nomogram was also useful for stratifying patients into low risk (<83 points) vs high risk (>83 points) groups (p=0.01)
• Clinical utility of the nomogram was limited by biomarker availability and inconsistencies in grading and staging classifications.

CONCLUSIONS

• The NET nomogram was a reliable tool for prognostication and for risk stratification
• However, refinement of grading and staging classification, and the addition of further clinicopathological parameters could improve its prognostic accuracy and clinical utility
The NET Nomogram