

# P-14

## Comparative Analysis of Characteristics and Outcomes of Patients with Early-Onset versus Average-Onset Small Bowel Neuroendocrine Tumors

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### BACKGROUND

The global incidence of early-onset gastrointestinal cancers (GI) is increasing. Although patients with more common early-onset GI cancers, e.g. colorectal cancer, often present with more advanced disease and experience relatively worse outcomes; the characteristics and treatment outcomes for less common early-onset small bowel neuroendocrine tumors (SBNETs) have yet to be explored.

### METHODS

We used the Surveillance, Epidemiology, and End Results (SEER) database to identify patients diagnosed with SBNETs from 2004-2021. Using ICD-0-3 SEER histology codes 8240/3, 8241/3, 8243/3, 8244/3, 8249/3, 8246/3), we restricted the sample to patients with SBNETs. Patients with poorly differentiated histology were excluded. We used the chi-square test to compare patients with early-onset SBNETs (EO-SBNETs, aged 30-49 years) and those with average-onset SBNETs (AO-SBNETs, aged  $\geq 50$  years) for categorical variables including sex, race/ethnicity, treatment and stage at diagnosis. Survival estimates were determined by Kaplan Meier analysis. Level of statistical significance was set at  $p < 0.05$ .

### RESULTS

A total of 3,713 patients with SBNETs were included in the analysis, of which, 925 (25%) were EO-SBNETs. Compared to patients in the AO-SBNETs group, EO-SBNETs patients were more likely to be females (51.1% vs 46.7%,  $p=0.02$ ), non-Hispanic Black (20.8% vs 17.6%,  $p=0.04$ ), Hispanic (13.6% vs 8.8%,  $p<0.0001$ ) and less likely to be non-Hispanic White (60.8% vs 69.9%,  $p<0.0001$ ). There were no observed differences in the stage at diagnosis between the EO-SBNETs and AO-SBNETs, i.e., localized disease (33.5% vs 31.0%,  $p=0.15$ ), regional spread (41.9% vs 42.8%,  $p=0.64$ ) and distant metastatic disease (20.9% vs 21.9%,  $p=0.500$ ). Patients did not differ in receipt of treatment modalities, i.e., surgical resection (90.5% vs 89.1%,  $p=0.25$ ), chemotherapy (5% vs 6.3%,  $p=0.15$ ) and radiation therapy (1.4% vs 1%,  $p=0.27$ ) comparing EO-SBNETs and AO-SBNETs respectively. In both unadjusted and models adjusting for age at diagnosis (stratified by 5-year intervals), race/ethnicity, sex, stage and socioeconomic status, early onset was significantly associated with better survival ( $p<0.0001$ ).

## **CONCLUSIONS**

To our knowledge, this is the first investigation related to characteristics and outcomes in EO-SBNETs. We noted significantly superior overall outcomes among EO-SBNETs despite no differences in stage and receipt of surgery compared to AO-SBNETs. These findings establish age at diagnosis as a significant prognostic factor for SBNETs. Further studies investigating the role of factors such as differences in tumor biology and patient preferences in receipt of other therapies besides surgery may be helpful in age adapted approach to the management of SBNETs.

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