

## C-39

# Primary Tumor Resection Is Associated With Improved Survival in Metastatic GI-NETs: A Retrospective Study in the Bronx, NY

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### BACKGROUND

Neuroendocrine tumors (NETs) present distinct clinical outcomes depending on the age at diagnosis, differentiating early-onset (EO, <50 years) from late-onset (LO, ≥50 years) cases. Although surgical removal of the primary tumor is a key component of treatment for localized NETs, its impact on survival in metastatic disease—particularly in the absence of metastasectomy—remains unclear. This study aims to explore survival-related factors in EO versus LO NET patients, with a focus on the role of primary tumor resection.

### METHODS

A retrospective cohort of 240 patients diagnosed with gastrointestinal (GI) NETs was identified through an IRB-approved study. The analysis included variables such as disease stage (localized vs. metastatic), tumor grade (G1–G3), five-year survival, primary tumor resection status, and race/ethnicity.

### RESULTS

Among all the 240 patients, 18% identified as Hispanic (44), 23% as Non-Hispanic Black (54), 32% as Non-Hispanic White (78), 13% as other (31) and 14% for which the information was not available (33). Among all the patients, 201 were classified as G1/G2. Among LO patients, 76.6% (n = 154) were G1/G2, among which 68.8% (n = 106) were metastatic. Among EO patients, 23.34% (n = 47) were G1/G2, among which 78.7% (n = 37) were metastatic. In the LO group with G1/G2 tumors, the 5-year survival rate was 27.8% (n = 42) for metastatic disease and 23.38% (n = 36) for localized disease. For EO WITH g1/g2 tumors, the 5 year survival rate was 42.5% (n = 20) for metastatic disease and 19.15% (n = 9) for localized disease. In the EO G1/G2 group, 12 of the 37 patients with metastatic disease had primary tumor removal without metastasectomy with 75% 5-year survival rate. In the LO G1/G2 group, 14 of the 106 metastatic patients had primary tumor removal without metastasectomy with 58.33% 5-year survival rate. Fisher exact test was performed independent of age at diagnosis between >5 year/< 5 year survival and surgery vs no surgery amongst metastatic individuals and we obtained a p-value of 5.34x10<sup>-6</sup> with Odds Ratio of 6.25 meaning that surgery for metastatic patients (with no metastasectomy) had a higher odds of 5-year survival as compared with no surgery patients.

## **CONCLUSIONS**

Primary tumor resection in patients with metastatic GI NETs, even without metastasectomy, was significantly associated with improved 5-year survival. This association was observed across the entire cohort, regardless of age at diagnosis. These findings suggest that primary tumor surgery may confer a survival benefit in metastatic GI-NETs and should be considered as part of treatment planning in patients.

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