Treatment Patterns and Outcomes in Metastatic Neuroendocrine Tumors: Results From a Retrospective Community Oncology Database

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Background: As the incidence of neuroendocrine tumors (NET) has increased and new treatment options have emerged, there has been interest in studying the real-world experience of NET patients, with a focus on the academic center setting. This study describes the treatment patterns and outcomes of metastatic NET (mNET) patients in the community oncology setting.

Methods: Patient-level data including demographic and clinical information, treatments, and outcomes were collected from medical records of adult patients with mNET from the Vector Oncology Data Warehouse, a comprehensive cancer patient database representing a network of community oncology practices in the US.

Results: 265 patients with mNET were included in the analysis; median age was 65 (range 22-92) and median follow-up was 22 months. Most patients (81%) were initially diagnosed with stage IV NET, and 74% had liver metastases. Of the 181 patients with tumor grade recorded, 53% had well-differentiated (G1), 13% had moderately-differentiated (G2), and 34% had poorly-differentiated (G3) tumors. 38% of
patients had intestinal NET, 31% had pancreatic NET, and 32% had other NET. The most frequently observed symptoms were diarrhea (44%) and abdominal pain (36%). Carcinoid syndrome or related symptoms were recorded for 43% of patients. The most common therapeutic classes utilized were somatostatin analogs (SSA) (58%), cytotoxics (35%), and targeted therapies (11%). Of 155 patients treated with SSA (all octreotide LAR), 34% received above-labeled dosing. Median progression-free survival (PFS) and overall survival (OS) from diagnosis were 9.9 months and 56.94 months, respectively. From diagnosis, patients with G1 or G2 tumors had a median OS of 83.93 months while patients with G3 tumors had a median OS of 12.43 months.

**Conclusions:** This is the first analysis of patients with mNET from a community oncology database in the US, and the results provide a real-world view of patient characteristics, treatment patterns, and outcomes.