

Octreotide LAR Among Elderly Patients With Neuroendocrine Tumors: A Survival Analysis of SEER-Medicare Data

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Background: Octreotide long-acting repeatable (LAR) is approved in the US for the management of carcinoid syndromes among patients with neuroendocrine tumors (NETs). The objective of our study was to evaluate the impact of octreotide LAR on overall survival (OS) as it has not been established.

Methods: NET patients diagnosed between 1/1999 and 12/2009 were identified from the SEER-Medicare database. Those under age 65, with histologic grade 3, 4 or unknown, enrolled in HMOs, or without continuous enrollment in Medicare Parts A and B were excluded. We compared the OS of NET patients who started octreotide LAR within 12 months of diagnosis to those who did not receive it during the same period. We conducted Kaplan-Meier estimations and Cox proportional hazard models to examine the association between octreotide LAR and OS.

Results: Among 1,176 distant stage patients, 233 (20%) received octreotide LAR within 12 months of diagnosis, compared to 2% (96 in 5,764) of local/regional stage patients. Median OS for patients who started octreotide LAR within 12 months was 35.22 months [95%CI, 27.96 – 47.77], longer than those who did not receive it (19.15 months [95%CI, 16.36 – 22.80]; $P < 0.0001$). Multivariate analysis showed that octreotide LAR was associated with significant survival improvement for distant stage patients (HR=0.68, $P < 0.001$) and in the subgroups with (HR=0.65, $P = 0.003$) and without (HR=0.55, $P = 0.002$) carcinoid syndrome. No survival benefit was found among local/regional stage patients.

Conclusions: This population-based study suggests potential survival benefits of octreotide LAR among elderly distant stage NET patients, both with or without carcinoid syndrome.