Factors Associated with Octreotide LAR Use Among Elderly Patients with Carcinoid Syndrome: A Population-Based Analysis

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Background: Octreotide LAR is indicated for the treatment of carcinoid syndrome, diarrhea related to VIPoma, and may delay tumor growth in neuroendocrine tumors (NETs). The pattern of octreotide LAR use in clinical practice has not been well documented.

Methods: Using the SEER-Medicare database, we identified patients diagnosed with NETs from July 1999 to Dec 2007. We then excluded those patients with poorly differentiated histology, under age 65 at diagnosis, enrolled in HMOs, and who did not have continuous Part A & B enrollment within 12 months of diagnosis. We further identified patients with potential indication for octreotide LAR use as those having two or more claims indicating carcinoid syndrome, flushing, diarrhea, or malignant islet cell neoplasm within the first year of NETs diagnosis, with the first claim occurring within 6 months of diagnosis. HCPCS codes, J2352 and J2353, were used to identify octreotide LAR use. Multivariate logistic regression analysis was performed to ascertain factors associated with octreotide use; covariates included age, race, region, comorbidity score, urban/rural status, tumor characteristics, neighborhood socioeconomic status and year of diagnosis.

Results: Of the 2000 NETs patients with potential indication for octreotide LAR use, 478 (23.9%) were started on octreotide LAR within 6 months of diagnosis. Multivariate analysis showed that older age (≥ 80) (OR=0.61, 95 CI=0.44 – 0.86), southern region (OR =0.67; 95% CI =0.44 – 1.00) and tumor of undetermined grade (OR=0.71, 95% CI=0.52 – 0.98) were associated with lower odds of octreotide use while the odds was positively associated with advanced stage and more recent diagnosis years. By primary site, no clear pattern was identified.

Conclusions: Our analyses suggest only a small (< 25%) fraction of patients with eligible diagnoses are receiving indicated therapy with octreotide LAR. Further studies and improved education are needed to improve the management of carcinoid syndrome.