

Sunitinib for treatment of pancreatic neuroendocrine tumors: Patient-reported outcomes and efficacy across patient subgroups in a Phase III trial

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Background: Sunitinib 37.5 mg continuous daily dosing was compared with placebo in 171 patients with progressive, well-differentiated pancreatic neuroendocrine tumors (NET) in a phase III trial. Sunitinib significantly prolonged median progression-free survival (PFS) vs placebo (11.4 vs 5.5 months; hazard ratio [HR] 0.418; 95% CI: 0.263, 0.662; p=0.0001) and was well tolerated. Here we present patient-reported outcomes (PROs) and exploratory subgroup analyses evaluating the impact of baseline characteristics on treatment efficacy.

Methods: PROs were assessed using the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire Core 30. Repeated measures mixed-effects models were used as the primary model for between-treatment comparison. Statistical significance (2-sided p value; 0.05 level) and clinical significance (minimally important difference, defined as ≥ 10 points) were assessed. The influence of baseline characteristics on treatment effect was explored using Cox proportional hazards model.

Results: In subgroup analyses, sunitinib was associated with a statistically significant improvement in PFS regardless of age, race,

gender, ECOG status, number of metastatic sites or time from diagnosis to study enrollment. Hazard ratios for PFS favored sunitinib regardless of prior and/or concurrent use of somatostatin analogues, and prior treatment with chemotherapy. Global health related quality of life (HRQoL), as well as cognitive, emotional, physical, role, and social functioning domains were not clinically or statistically different between the sunitinib and placebo arms. However, among symptoms and other scales, patients receiving sunitinib experienced clinically and statistically significant worsening of diarrhea, and statistically significant worsening of insomnia vs placebo. Improvement in PFS with sunitinib delayed deterioration in emotional and physical functioning and global HRQoL.

Conclusions: Sunitinib resulted in significant PFS improvement vs placebo and maintained HRQoL in patients with pancreatic NET. The PFS improvement was clinically meaningful across all subgroups studied, indicating that its use was independent of baseline characteristics.