Efficacy of Octreotide Long-Acting Repeatable (OCT) From the Phase III RADIANT-2 Study in Patients With Advanced Neuroendocrine Tumors (NET): A Post-Hoc Analysis of the Placebo (PBO) Arm With Updated Survival Data

Jonathan R. Strosberg1; James C. Yao2; Emilio Bajetta3; Mounir Aout4; Bert Bakker5*; John D. Hainsworth6; Philippe B. Ruszniewski7; Eric Van Cutsem8; Kjell E. Öberg9; Marianne E. Pavel10

1Department of Gastrointestinal Oncology, Moffitt Cancer Center, Tampa, FL 33635, United States
2Department of Gastrointestinal Medical Oncology, Division of Cancer Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX 77001, United States
3Istituto di Oncologia, Policlinico di Monza, Monza, Italy
4Novartis Pharma AG, Basel, Switzerland
5Novartis Pharmaceuticals Corporation, East Hanover, NJ 07936, United States
6Sarah Cannon Research Institute, Nashville, TN 37201, United States
7University of Paris VII and Hopital Beaujon, Paris, France
8Digestive Oncology Unit, University Hospital Gasthuisberg/Leuven, Leuven, Belgium
9Uppsala University Hospital, Uppsala, Sweden
10Department of Hepatology and Gastroenterology, Charité-Universitätsmedizin Berlin/Campus Virchow Klinikum, Berlin, Germany
*Current affiliation: Versartis, Menlo Park, CA 94025, United States

Background: OCT demonstrated antitumor activity and significantly extended time to tumor progression (TTP) vs PBO in patients with metastatic midgut NET (PROMID trial, Rinke et al. 2009). The RADIANT-2 study evaluated patients with symptomatic advanced NET. Here we report a post-hoc analysis assessing progression free survival (PFS) and overall survival (OS) of OCT (30 mg q28d) in the PBO+OCT arm of this study for the overall population and patients with midgut NET.

Methods: Patients eligible for the RADIANT-2 study had progressive disease within the past 12 months and a history of carcinoid symptoms (diarrhea or flushing). PFS (by central review as per RECIST 1.0, cutoff, April 2, 2010) and OS (cutoff, June 13, 2013) in the PBO+OCT arm were estimated by prior somatostatin analogue (SSA) use and primary tumor location subgroups using the Kaplan-Meier method.

Results: 213 patients were randomized to PBO+OCT. Of these, 47 (22%) were SSA naive (foregut, 32%; midgut, 51%; hindgut, 4%; not classified or missing, 13%) and 166 (78%) had received SSA (foregut, 10%; midgut, 72%; hindgut, 11%; not classified or missing, 7%) prior to study entry. Median PFS and OS findings are presented in the Table.
**Table. PFS and OS in Patients With and Without Prior SSA in the PBO Arm of RADIANT-2**

<table>
<thead>
<tr>
<th></th>
<th>No-prior SSA median (95% CI)</th>
<th>Prior SSA(^a) median (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFS (months)</td>
<td>13.6 (8.2-22.7) (n=47)</td>
<td>11.1 (8.4-14.2) (n=166)</td>
</tr>
<tr>
<td>PFS, midgut NET (months)</td>
<td>22.2 (8.3-29.5) (n=24)</td>
<td>12.0 (8.4-17.7) (n=119)</td>
</tr>
<tr>
<td>OS (months)</td>
<td>50.6 (36.4-NR) (n=47)</td>
<td>33.0 (24.5-43.7) (n=166)</td>
</tr>
<tr>
<td>OS, midgut NET (months)</td>
<td>NR(^b) (42.4-NR) (n=24)</td>
<td>33.5 (27.5-49.4) (n=119)</td>
</tr>
</tbody>
</table>

\(^a\)Includes patients who previously received OCT or lanreotide. \(^b\)For patients with midgut NET who did not receive prior SSA, the OS was not reached (NR) at a median follow-up of 64 months.

**Conclusions:** This post-hoc analysis, for the first time, provides prospective data on survival outcomes of patients with progressive NET treated with SSA therapy. SSA-naive patients with progressive midgut NET treated with OCT had a relatively long median PFS of 22.2 months, exceeding the TTP of 14.3 months observed in the PROMID study (World Health Organization criteria). This data may represent a more accurate reflection of PFS by RECIST associated with first-line SSA use in midgut NET.