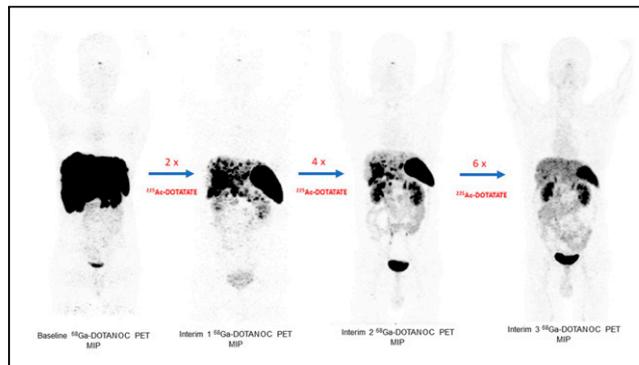


2022 SNMMI Henry N. Wagner, Jr., MD, Best Abstract of the Year

A presentation on longer-term outcomes of ^{225}Ac -DOTATATE–targeted α therapy in patients with advanced-stage somatostatin receptor–expressing metastatic gastroenteropancreatic neuroendocrine tumors (GEP-NETs) was named as the Henry N. Wagner, Jr., MD, Abstract of the Year on June 13 at the SNMMI Annual Meeting in Vancouver, Canada. The study, titled “A phase II clinical study on ^{225}Ac -DOTATATE therapy in advanced-stage GEP-NET patients,” was presented by Bal et al. from the All India Institute of Medical Sciences (New Delhi). This is the second year that research from this group was recognized with the Best Abstract Award, this time reporting on an expanded cohort with longer follow-up. Each year, SNMMI chooses an abstract that best exemplifies the most promising advances in the field of nuclear medicine and molecular imaging. This year, the awardee was chosen from more than 1,000 abstracts submitted for the meeting and voted on by reviewers and society leadership.

The study included 83 GEP-NET patients (34 women, 49 men; mean age, 54 ± 11.6 y; range, 25–74 y), of whom 56 had prior ^{177}Lu -DOTATATE treatment (24 stable disease, 32 progressive disease) and 27 had prior peptide-receptor radionuclide therapy. Participants were treated with a median of 4 (range, 1–10) ^{225}Ac -DOTATATE targeted α therapy cycles (100–120 kBq/kg body weight) and a renal protection protocol. Over a median follow-up of 18 months, 24 patients died, with 12- and 24-month overall survival (OS) of 85.3% and 67.6%, respectively. At a median follow-up of 27 months, estimated median OS was $<50\%$. For the 74 patients who had undergone radiographic progression-free survival (rPFS) assessment, the median rPFS was not reached at the 18-month median follow-up, with 2 patients (2.7%) showing a complete response, 32 (43.2%) a partial response, 25 (34%) presenting with stable disease, and 15 (20%) with progressive disease. A higher percentage of patients who had failed previous ^{177}Lu -DOTATATE



2022 SNMMI Abstract of the Year Excellent sustained response in a 34-year-old male with pancreatic neuroendocrine tumor. Baseline ^{68}Ga -DOTANOC PET maximum-intensity projection image (MIP) (left) shows intense somatostatin receptor expression in the pancreas, multiple abdominopelvic lymph nodes, and extensive liver metastases. The patient underwent 6 cycles of ^{225}Ac -DOTATATE (100–120 kBq/kg body weight; shown left to right in increments of 2 cycles) and remained under follow-up at 48 months.

treatment showed progressive disease (34%) than those who had not (11%). Only 1 grade 3/4 toxicity was noted.

“ ^{225}Ac -DOTATATE is a promising therapy option that adds a new dimension to the treatment of end-stage GEP-NETs, especially for patients who have tried all other standard therapy options,” said Chandrasekhar S. Bal, MD, DNB, DSC (HC), professor and head of the Department of Nuclear Medicine and PET at the All India Institute of Medical Science. “These results warrant a phase III randomized control trial to assess the true efficacy of ^{225}Ac -DOTATATE versus ^{177}Lu -DOTATATE.”

“The results from this study not only emphasize the promise and success of targeted α therapies but also reflect growing global interest in these life-extending treatments,” said Heather Jacene, MD, SNMMI Scientific Program Committee chair. “We look forward to further research on this topic in the future.”