

C-23

Neuroendocrine tumor (NET) progression of disease during or within one year after completion of therapy with ¹⁷⁷Lu-DOTATATE

Courtney Porfido, Simone Krebs, Heiko Schoeder, April DeMore, Sippy Punni, Diane Reidy-Lagunes, Nitya Raj.

Memorial Sloan Kettering Cancer Center.

BACKGROUND

The survival and response benefit of ¹⁷⁷Lu-DOTATATE to treat NETs is established by prospective trials. Further study of NETs with limited response to ¹⁷⁷Lu-DOTATATE remains. We report single-institution outcomes of patients with NETs that experienced disease progression during or within one year after completion of ¹⁷⁷Lu-DOTATATE.

METHODS

Patients with a NET diagnosis who received at least one ¹⁷⁷Lu-DOTATATE cycle were included. Demographics, clinicopathologic data, prior treatments, ¹⁷⁷Lu-DOTATATE treatment data, response (based on radiographic reports) were collected.

RESULTS

Among 284 treated patients, 105 (37%) progressed during or within one year after ¹⁷⁷Lu-DOTATATE therapy.

Among these patients (pts), 67 (64%) received all 4 cycles, with radiographic progression identified on average at 6.4 months (range 0-12) after therapy completion. Best response: partial response (34 pts, 51%), stable disease (14 pts, 21%), progressive disease (19 pts, 28%). Site of origin: pancreas (38 pts, 57%), small bowel (10 pts, 15%), lung (5 pts, 7%), rectal (3 pts, 4%), kidney (2 pts, 3%), gastric (1 pt, 1%), large intestine (1 pt, 1%), unknown (6 pts, 9%). Tumor grade (G): G1 (15 pts, 22%), G2 (37 pts, 55%), G3 (12 pts, 18%), unknown (3 pts, 4%). Mean number of prior treatments: 4.0 ± 2.1 (range 1-11).

Thirty-eight pts (36%) with progression received fewer than 4 cycles (1: 6 pts, 16%, 2: 17 pts, 45%, 3: 15 pts, 39%). In this cohort, radiographic progression was identified on average 3.2 months into therapy (range 0-12). Best response: partial response (10 pts, 26%), stable disease (6 pts, 16%), progressive disease (22, 58%). Site of origin: small bowel (14 pts, 37%), pancreas (9 pts, 24%), lung (7 pts, 18%), rectal (2 pts, 5%), appendix (1 pt, 3%), unknown (5 pts, 13%). Tumor grade: G1 (12 pts, 32%), G2 (21 pts, 55%), G3 (4 pts, 10%), unknown (1 pt, 3%). Mean number of prior treatments: 4.0 ± 2.6 (range 0-12). Reasons for early treatment discontinuation: radiographic/clinical progression (28 pts, 71%), hematologic toxicities (7 pts, 18%), bowel obstruction (1 pt, 3%), death (1 pt, 3%), infection (1 pt, 3%), ¹⁷⁷Lu-DOTATATE production delay (1 pt, 3%).

CONCLUSIONS

Among patients with disease progression during or soon after ^{177}Lu -DOTATATE completion, 64% received the full treatment course/4 cycles. Early progression was more commonly seen in G2/3 disease (74 pts, 70%). The most common reasons for therapy cessation prior to completion of 4 cycles were disease progression during treatment followed by therapy-related hematologic toxicities.

ABSTRACT ID 28603