C-25

Capecitabine/Temozolomide Chemotherapy in Metastatic Neuroendocrine Tumors - Response Rate and Survival by Grade

Katharine Thomas[1]; *Ryan Griffin[1,2]; Brianne Voros[2,3]; J. Phillip Boudreaux [2,3]; Ramcharan Thiagarajan[2,3]; Eugene Woltering[2,3]; Robert Ramirez [1,2]*

[1]Ochsner Medical Center; [2]Ochsner Kenner; [3]Louisiana State University

BACKGROUND: Neuroendocrine tumors (NETs) are commonly treated with various modalities, including surgical, liver-directed, radionuclide, or medical therapy such as chemotherapy. The role of chemotherapy has recently evolved. The combination of capecitabine and temozolomide (CAPTEM) has been evaluated in multiple trials and has been shown to have notable activity in grade 1 and 2 pancreatic NETs. We present a retrospective study of patients treated with CAPTEM for NETs irrespective of tumor location or grade.

METHODS: Patients with NETs who received at least one cycle of CAPTEM between June 1, 2012 and May 31, 2018 were included for analysis. Data collection included demographics, pathologic characteristics, imaging results, and treatment data. Based on the World Health Organization's classification of NET, grade (G)1 tumors had well differentiated (WD) histology with a ki-67<3, G2 were WD with a ki-67 3-20, G3 were WD with a ki67>20, and NEC were poorly differentiated tumors with ki67>20. Response rate was calculated by RECIST 1.1. Overall survival (OS) and progression-free survival (PFS) were calculated by the Kaplan-Meier survival method.

RESULTS: This study included 114 patients. Median age at diagnosis was 56 years (range: 17-83). Primary tumors included pancreas n=46 (40%), small bowel n=37 (32%), unknown primary site (UPS) n=12 (11%), lung n=12 (11%),

colon/rectum n=6 (5%), and kidney n=1(1%). Median number of cycles was 9.5. Clinical benefit defined as CR, PR, or stable disease was seen overall in 73.6% and in multiple primary tumor sites including 76% pancreas, 79% small bowel, UPS 66%, 66% colon, 50% lung, 100% kidney. Forty-nine patients died during this period. Median OS was 33 months (CI: 29-44) and median PFS was 12 months (CI:10-23).

CONCLUSION: Clinical benefit was seen using CAPTEM across the spectrum of NETs irrespective of primary site or grade, including neuroendocrine carcinoma. CAPTEM should be considered as a reasonable treatment option for metastatic NETs.

Table 1:

CAPTEM Response and Survival by Grade

	Low n= 29	**Intermediate n= 46**	**High (NET n=16; NEC n=18)**
Complete Response, n (%)	0 (0)	1 (2)	0 (0); 0 (0)
Partial Response, n (%)	5 (17)	12 (26)	0 (0); 4 (22)
Stable Disease, n (%)	19 (66)	24 (51)	9 (56); 6 (33)
Progressive Disease, n (%)	5 (17)	10 (21)	7 (44); 8 (44)
Median PFS	26 mo	12 mo	5 mo
Median OS	44 mo	33 mo	25 mo

OS, Overall survival; PFS, Progression free survival; Mo, months