Aim: Pulmonary carcinoids are rare cancers with limited data regarding treatment and outcomes, particularly for those patients (pts) with metastatic disease.

Methods: Pts with metastatic pulmonary carcinoids diagnosed between 2006-2013 were identified using institutional databases. Data on pt characteristics, response to chemotherapy by RECIST 1.1, progression free survival (PFS), and overall survival (OS) were determined using the Kaplan-Meier Method.

Results: Sixty one pts were included in this series; of these, 32 pts had atypical carcinoid (AC), 23 had typical carcinoid (TC), and 6 had carcinoid NOS. There was no significant difference in sex, avidity of octreotide scan, or smoking status between patients with AC versus TC. Pts with AC were more likely to be younger (median age of 59.5 versus 68.0, p=0.016) and develop brain metastasis during their treatment course as compared to pts with TC (41% versus 13%, p=0.036). Median OS was 59.1 mths and was not significantly better for TC versus AC (p=0.91). Among the varied systemic therapies used, partial response occurred in 2 of 25 patients (8%) who received platinum based therapies with a median overall survival of 47.6 mths from start of therapy, and in 2 of 15 pts (13%) who received temozolomide with a median PFS of 2.5 mths.

Conclusions: This is the largest review of the clinical features of pts with metastatic pulmonary carcinoids. Brain metastases occur commonly in patients with AC. If validated, screening MRIs and prophylactic whole brain radiation therapy may be warranted. Although platinum based therapies and temozolomide show some activity in metastatic pulmonary carcinoids, novel treatment approaches are needed.

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