

Chemotherapy for Locally Advanced and Metastatic Pulmonary Carcinoid Tumors

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Background: The optimal management of locally advanced and metastatic pulmonary carcinoid tumors remains to be determined.

Materials and methods: A retrospective review was conducted on patients with typical and atypical pulmonary carcinoid tumors treated at our institutions between 1990-2012.

Results: 300 patients were identified with pulmonary carcinoid, (80 patients with atypical carcinoid), of whom 29 presented with metastatic disease (16 atypical). Of evaluable patients, 26 (41%) with stage I-III atypical carcinoid tumors recurred at a median time of 3.7 years (range, 0.4-32), compared to 3 (1%) patients with typical carcinoid (range, 8-12.3). 39 patients were treated with chemotherapy, including 30 patients with metastatic disease (27 atypical), and 7 patients were treated with adjuvant platinum-etoposide chemoradiation (6 atypical, 1 typical, 6 stage IIIA, 1 stage IIB). At a median follow-up of 2 years there were 2 recurrences in the 7 patients receiving adjuvant treatment. Median survival after diagnosis of metastatic disease for patients with atypical pulmonary carcinoid was 3.3 years with a 5 year survival of 24%. Treatment regimens showing efficacy in pulmonary carcinoid include 15 patients treated with octreotide-based therapies (10% response rate (RR), 70% disease control rate (DCR), 15 month median progression-free survival (PFS)), 13 patients treated with etoposide + platinum (23% RR, 69% DCR, 7 m median PFS), and 14 patients treated with temozolomide-based therapies (14% RR, 57% DCR, 10 m median PFS). 8 of 10 patients with octreotide-avid disease treated with an octreotide-based regimen experienced disease control (1 partial response, 7 stable disease) for a median of 18 months (range 6-72 months).

Conclusions: These results support our previous finding that a subset of pulmonary carcinoid tumors are responsive to chemotherapy.