

Is Surgical Cytoreduction for Stage IV Pancreatic Neuroendocrine Tumors Justifiable?

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Background: Pancreatic neuroendocrine tumors (pNETS) comprise <2% of all pancreatic tumors. They can be functioning or nonfunctioning. Long-term survival in patients with metastatic disease is generally poor, with recent SEER data citing 5- and 10- year survival of 19.5% and 7.1% respectively. We hypothesized that surgical cytoreduction of stage IV pNETS would improve survival.

Methods: Eighty-nine charts of consecutive well-differentiated pancreatic NET patients seen in our clinic from 5/2006 through 7/2012 were reviewed. Only patients with liver metastases were included in this study (n=64). Tumor characteristics and surgical procedures were reviewed and Kaplan-Meier survival curves were generated.

Results: Fifty-one (51/64, 80%) patients had nonfunctional pNETS vs. 13 (13/64, 20%) with functional pNETS. Sixteen (16/64, 25%) patients had pancreatic primary resected without concurrent liver resection, 27 (27/64, 42%) patients underwent combined pancreatic and liver resection, 5 patients (5/64, 8%) underwent resection of their liver metastases only without resection of their primary. Sixteen (16/64, 25%) patients did not undergo any NET-related surgeries.

The 5- and 10-year survival rates for the whole cohort were 62% and 48% respectively; survival in the surgical group was 66% and 49% vs. 54% and 45% in non-surgical group. Patients who underwent surgical cytoreduction had a median survival of 81 months in contrast to nonsurgical group with a survival of 61 months.

Conclusions: Aggressive surgical cytoreduction for patients with stage IV pNETS is warranted and should be recommended for all low risk surgical candidates.