

# C-53

## The Effects of Peritoneal Carcinomatosis on the Prognosis of Patients with Advanced Midgut Neuroendocrine Tumor

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**BACKGROUND:** Peritoneal carcinomatosis from most malignancies is generally associated with a poor prognosis. However, the clinical implication of peritoneal carcinomatosis from midgut neuroendocrine tumors (NETs) remains undefined. Given the indolent nature of midgut NETs, we hypothesized that carcinomatosis in these patients does not inherently translate into a poor prognosis.

**METHODS:** Four-hundred forty-eight consecutive midgut NET patients, operated on at our institution between December 1995 and September 2014, with distant metastatic disease were included. Patients were divided into three groups. Group 1 had peritoneal carcinomatosis only (n=14/448), group 2 had liver metastasis without carcinomatosis (n=350/448), and group 3 had carcinomatosis with liver metastasis (n=84/448). Kaplan-Meier analysis was performed and survival rates were compared among the three groups.

**RESULTS:** Survival data among the groups were as follows:

Group 1 (carcinomatosis only): 8/14 patients have died (57%). Group 2 (liver metastasis only): 90/350 patients have died (26%). Group 3 (carcinomatosis and liver metastasis): 35/84 patients have died (42%). Group 1, 2, and 3 patients had a median survival of 87, 287, and 138 months, respectively. Survival stratified by group 1 versus group 3 was not statistically significant ( $p>0.05$ ). Additional

comparison of five-year survival rates and statistical significance between groups is shown in the table below.

**CONCLUSION:** The presence of peritoneal carcinomatosis per se in patients with a midgut NETs portends an extremely poor prognosis. However, with a concurrent advanced disease in the liver the lethality has been curtailed. This intriguing and unexpected finding needs a more protract longitudinal follow up study to validate and the biologic explanation of this phenomenon warrant further exploration.