

# C-49

## Clinical Significance of Multifocal Primary Tumors in Small Bowel Neuroendocrine Tumors

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**BACKGROUND:** Multifocal primary tumors occur in up to 30% of cases of small bowel neuroendocrine tumors. The clinical significance of multifocal disease remains to be established. Existing retrospective studies suggest that patients with multifocal disease are younger at time of diagnosis, have higher likelihood of experiencing carcinoid syndrome, have worse prognosis and/or disease burden at 36 months, and have shorter disease free survival. This study aims to contribute to the understanding of multifocal disease by presenting our experience with this phenomenon at a single academic medical center.

**METHODS:** Retrospective review of medical records of patients undergoing surgical resection of small bowel neuroendocrine tumors between 2012 and 2017 at a single academic medical center with a dedicated center for neuroendocrine disease management (The Mount Sinai Hospital, NY) was performed. Patients with multifocal disease were compared to those with single primary tumors.

**RESULTS:** Data was abstracted from 62 patients. Multifocal disease was seen in 39% of patients. As detailed in Table 1, patients with multifocal disease were of similar age as patients with single primary at time of diagnosis and surgical intervention. Abdominal pain, diarrhea, and carcinoid syndrome were the most common clinical symptoms in both groups. Interestingly multifocal disease tended to be well differentiated and have lower Ki67 index. The average size of

the primary tumor was similar in both groups. Finally, overall survival was similar in both groups.

**CONCLUSION:** The prevalence of multifocal disease was higher at our institution/series than previously reported. No differences in the clinico-pathological features between multifocal and single disease were identified; however, the statistical significance of our findings is limited by small sample size. Review of further patient data are underway (2007 – 2012) to obtain more insight into multifocal disease.

**Table 1:**

**Clinico-pathological features of patients with small bowel neuroendocrine tumors.**

Feature	Single	Multifocal
Number (% total)	38 (61%)	24 (39%)
Average age at Diagnosis/Surgery (years)	59.8/60.6	59.5/60.3
Abdominal Pain (Bowel Obstruction)	42% (16%)	58% (17%)
Diarrhea	61%	50%
Carcinoid Syndrome (Heart Disease)	45% (8%)	46% (8%)
Size of primary (cm +/- st dev)	1.76 + 0.96	2.39 + 1.63
Stage I-II, III, IV	5%, 37%, 58%	8%, 26%, 66%
Grade G1, G2, G3	65%, 32%, 3%	80%, 20%, 0%
Ki67 Index <2%, 2-30%	65%, 35%	86%, 14%
Overall survival	82%	79%