

# C-43

## A Minimally Invasive Approach for the Surgical Management of Small Intestine Neuroendocrine Tumors (SI-NETs)

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**BACKGROUND:** Small intestine neuroendocrine tumors (SI-NETs) are the most common small bowel malignancy. SI-NETs have unique features that include small size, multifocality, and mesenteric adenopathy/fibrosis that make diagnosis and treatment challenging. The role of minimally invasive surgery (MIS) is poorly defined for SI-NETs. We hypothesized that MIS can successfully accomplish the goals of SI-NET surgery.

**METHODS:** We performed a retrospective review of our SI-NET database at a tertiary-care medical center (2005-2017). Patients with SI-NETs that underwent initial resection at our institution were included (n=80). The goals of SI-NET surgery are an oncologic resection of the primary tumor(s) and mesenteric adenopathy/fibrosis, as well as thorough staging. Surgeries were performed with an open or minimally invasive approach. A hand-assisted device was used during MIS to permit palpation of the small intestine.

**RESULTS:** Of the 80 patients with SI-NETs who underwent resection, 41 (51.3%) patients had open surgery and 39 (48.8%) patients had MIS. 51 (63.8%) patients had primary tumors of unknown origin, and all primary tumors were identified by either open surgery (n = 28) or MIS (n= 23). Approximately half of patients (36/80, 45%) had multifocal primary tumors that were found with open surgery (n=19) or MIS (n=17). 10 patients (20.4%) who underwent MIS required

conversion to open to safely resect the mesenteric adenopathy/fibrosis.

Conclusion: The goals of SI-NET surgery can be achieved successfully with MIS. Use of a hand-assisted device permits identification of unknown and multifocal primary tumors by palpation, which is critical for SI-NET surgery.