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13. PANCREATIC NEUROENDOCRINE TUMORS: SURGICAL OUTCOMES AND SURVIVAL ANALYSIS

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Background: Pancreatic Neuroendocrine Tumors (pNET) are a rare clinical entity with rising incidence. There has been limited research on the clinicopathologic characteristics of this tumor, particularly regarding functional tumors.

Methods: Adult patients with histologically confirmed pancreatic neuroendocrine tumors (pNET) at a single tertiary care center were retrospectively evaluated. Patients were excluded if they had emergent surgery or insufficient medical documentation. Clinicopathologic data including patient demographics, surgical characteristics, tumor location, staging, surgical approach, and postoperative variables were collected.

Results: In total, 94 patients underwent resection for pNET between 2007 and 2019. The mean age was 60.2 years and mean BMI was 27.5. The majority (76%) were non-Hispanic white, 11 (10.4%) were Hispanic, 12 (11.5%) were black, and 2 (2.1%) were Asian. Ten percent of patients had a functioning PNET: 9 patients (9.6%) had an insulinoma (55.5% 4cm; 11.1% Gx, 88.9% G1), and 1 (1%) had a VIPoma (>4cm, G1). The majority (87.2%) had nonfunctioning PNETs (32.55% 4cm; 5.8% Gx, 69.7% G1, 16.27% G2, 8.1% G3). There was not a statistically significant difference in overall survival when tumors were grouped by size (2cm; p=.82) although when grouped by grade, overall survival approached statistical significance (Figure 1 [G1 v.s. G2/G3; p=0.06])

The surgical approach included 35 distal pancreatectomy/splenectomy (37.2%), 25 pancreaticoduodenectomy (26.6%), 13 total pancreatectomy (14%), 10 distal pancreatectomy (10.6%), 10 enucleations (10.6%), and 1 central pancreatectomy (1.1%). Of all cases, 33 (35%) were performed minimally invasively (19% laparoscopic, 16% robotic); of these cases, 10 were converted to open. Open surgery was the approach for 61 cases (65%).

Postoperatively, 50 patients were admitted to surgical intensive care (53.2%) and 46 were admitted to non-intensive care units (46.8). Mean post-operative LOS was 9.71 days.

Conclusion: This series demonstrates that patients with pNET have long-term survival after surgical resection, including those with functioning tumors.