Surgical View of GEP-NET

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Gastro-entero-pancreatic neuroendocrine tumors (GEP-NET) are rare, benign or malignant epithelial tumors and can be classified as functional or nonfunctional. Functional tumors display a clinical syndrome because of excessive endocrine function. The surgical strategy is determined by histologic nature, size and site of the tumor. Surgical strategy for GEP-NET is judged and based on anatomic and oncologic demands. For a circumscriptive tumor, a limited resection is suggested and organ-sparing surgery is performed. Right-sided tumors are resected by Whipple's operation or duodenum-preserving resection of the pancreatic head, whereas left-sided lesions can be treated by a left-sided resection of the tail with spleen-preserving as possible. Segmental pancreatic body resections may be considered for central located P-NET. For a suspicion of malignant growth in CT or MRI imaging, extended en bloc resection of the affected part of the pancreas and a radical lymph node dissection are suggested. Where necessary, a total pancreatectomy is performed. When the liver is affected, preoperative liver volume and arterial blood supply are evaluated by angio-CT scan and the affected part is resected on primary operation when feasible.

We have retrospectively reviewed 105 patients with GEP-NET, who underwent operations in Chang Gung Memorial Hospital between 1992 and 2012. Male to female ratio is 50 to 55 , and nonfunctional GENET vs functional GEP-NET is medical records is 62 vs. 43. Twenty-four patients had malignant tumor. Among them, 71.4% are G1, and 17.8% are G2, 10.8% are G3. Our five year survival rate was 68%, 10 year survival rate was 45.8%. The conclusions of our experience are low mortality and morbidity for patients treated for pancreatic and peri-pancreatic NETs. The most favorable outcomes are observed in patients with benign NET and in those with completely resected malignant NET.

In summary, for functioning NETs, surgery remains the optimal therapy, however, long-term survival can be expected even in the presence of metastases. With advances in medical management, radio-labelled somatostatin therapy, hepatic arterial chemo-embolization and radiofrequency ablation, symptoms may be controlled to optimize quality of life.