Chirurgia (Bucur). 2019;114(5):639-649
http://dx.doi.org/10.21614/chirurgia.114.5.639

The Pancreatic Endocrine Tumors - Experience of First Surgical Clinic Iasi

Eugen Târcoveanu, Cristian Lupascu, Alin Vasilescu, Radu Moldovanu, Dan Andronic, Delia Ciobanu, Costel Bradea
„I. Tãnãsescu – Vl. Buåureanu" First Surgical Clinic,"St Spiridon" University Hospital
"Gr.T. Popa" University of Medicine and Pharmacy Iasi, Romania

Abstract
Pancreatic neuroendocrine tumors (PNETs) are rare and characterized by widely variable clinical presentation and often challenging surgical management.
Methods: Retrospective study conducted during the last 15 years at the First Surgical Clinic of the Iasi „St Spiridon" University Hospital, and which included all the patients diagnosed with pancreatic endocrine tumors by immunohistochemistry.
Results: There were 26 cases diagnosed with PNET. The male/female ratios was 7/19 and mean age 41.93 ± 2.48 years (range 20-79 years). Of the PNET cases 13 were insulinomas, 5 gastrinomas, 2 gastrinomas associated with other endocrine neoplasms (Wermer syndrome), 5 non-functional endocrine pancreatic tumors and 1 ACTHoma. Clinical manifestations depended on tumor type: hypoglycemia and Whipple triad for insulinoma, Zollinger Ellison syndrome and complicated peptic ulcer (hemorrhage, perforation) for gastrinoma, Cushing syndrome for ACTHoma. Biological diagnosis included biological markers (e.g. insulin, gastrin and cortisol). Tumor site and size at diagnosis were determined by ultrasound, CT-scan, angiography, PET-scan, octreoscan and intraoperative ultrasound. Surgical procedures for PNET insulinomas were: tumor resection – 6 cases; left splenopancreatectomy -3 cases; left spleen-preserving pancreatectomy – 2 cases; pancreaticoduodenectomy – 2 cases. We also present 4 cases of gastrinoma with multiple ulcers and multiple surgical interventions for hemorrhage and perforation with peritonitis. The two patients with Wermer syndrome also had ulcers complicated with hemorrhage and peritonitis and parathyroid adenoma. Nonfunctional pancreatic endocrine tumors were diagnosed in 5 women of which in 3 the tumors were located in the pancreatic tail (in which splenopancreatectomy and left pancreatectomy with spleen preservation were performed) and in 2 in the pancreatic head (in which pancreatico-duodenectomy and Beger type operation were performed).
Conclusions: Knowledge of clinical signs of secreting tumors and exploring the patients are of crucial importance for management of PNETs. Immunohistochemistry is mandatory for confirming the diagnosis and assessing the proliferation and biological behavior of the tumor, thus facilitating the administration of specific therapy. Aggressive surgical treatment is indicated, even in advanced stages.
Key words: pancreatic endocrine tumors, insulinoma, gastrinoma, Zollinger-Ellison syndrome, Wermer syndrome, pancreatectomy