# ESP Slide Seminar “Pancreatic Cystic Neoplasms”

***Case from Dr. Günter Klöppel, Dept of Pathololgy, Technical University München***

## Clinical history:

An abdominal mass was detected in a 65 year-old woman, who presented with upper abdominal dsicomfort Imaging studies showed a multi- and microcystic tumor mass in the tail of the pancreas. The tumor was resected and presented as a nodular and well-demarcated mass, 11 cm in greatest dimension. The cut surface of the tumor was reddish and soft with multiple microcysts between solid areas. The cysts were filled with serous fluid.

## Microscopic findings:

The section shows multiple small cyst, which are lined by cuboidal neoplastic cells.with pale cytoplasm. In other more solid areas the tumor tissue displays a trabecular architecture. Mitotic figures are only occasionally seen (less than 1 per 10 high power fields). No foci of necrosis are identified. Immunohistochemistry confirm the neuroendocrine nature of the cells linig the cysts, with diffuse positivity for synaptophysin and focal for chromogranin A. Many cells show glucagon positivity and negativity for insulin, somatostatin or PP. Ki-67 index was 10%.

## Diagnosis:

Neuroendocrine tumor (NET) G2 (10%) with microcystic changes, producing glucagons (WHO classification 2010). Well-differentiated non-functional microcystic endocrine tumor of low grade malignant behavior (WHO classification 2000).

## Discussion:

Sporadic and solitary pancreatic neuroendocrine neoplasms (PanNENs) show true macro- or microcystic changes in 5.5 % of all cases. In MEN1 associated PanNENs the relative frequency of cystic tumors increases to 10.5 %. Two thirds of the cystic PanNENs express glucagon, without an associated glucagonoma syndrome. It seems that the entire group of cystc PanNENs has a better outcome than the comparable solid PanNENs. EUS-guided FNAB may allow a correct diagnosis preoperatively.


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