



## **EUS and pancreatic lesions in patients with Von Hippel Lindau disease.**

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### **Introduction:**

Von Hippel Lindau (VHL) disease, an hereditary neoplastic syndrome, presents with multiple tumors in different tissues. Pancreatic involvement includes cystic and solid lesions (mainly neuroendocrine-NET).

### **Summary:**

We present the cases of 5 patients with VHL syndrome.

They had tumors in different organs (pheochromocytomas, renal cell carcinoma and cysts, retinal angiomas, hemangioblastomas, pulmonary nodules).

Sectional imaging revealed pancreatic lesions in all patients; none had symptoms related to hormones hypersecretion or compression. EUS was performed to stage and guide biopsies.

- 3 patients had pancreatic cysts: 2 of them had also small hypoechoic masses. The aspirated fluid had insufficient cellularity for diagnosis in 2 patients, negative in one. The FNA of the masses were bloody and not diagnostic. After one year a patient presented with a 3 cm pancreatic mass, the FNA was compatible with NET.

- 2 patients had solid lesions: a) a patient presented a hypoechoic area with cystic spaces and calcifications: the 1<sup>st</sup> FNA was not diagnostic, the 2<sup>nd</sup> one (after 6 months) was suggestive for NET. b) the other patient had 2 small hypoechoic lesions: FNA confirmed a NET.

The vascular pattern of the solid lesions was typical for NET in 100% of patients (hypervascularization supported by a rich eco-color Doppler signal, better visualized after iv infusion of SonoVue).

### **Conclusions:**

All patients followed for VHL disease presented pancreatic lesions. Contrast-enhanced EUS is helpful to define the typical hypervascularized pattern of NET. FNA could be inadequate since the hypervascularized lesions give too bloody specimens.