cyclic Cushing syndrome caused by an intestinal neuroendocrine tumour (NET) detected by 68GA-DOTATATE PET-CT, despite functional tests that were indicative of pituitary Cushing disease. Clinical Case A 53-year old man was admitted to outpatient clinic because of muscle weakness. His phenotype and clinical findings (progressively worsening upper and lower limb weakness, emotional disturbances, easy bruising, a Buffalo hump, prediabetes and leucocytosis) led to the diagnosis of Cushing syndrome. Initial laboratory tests established the diagnosis with an abnormal diurnal cortisol and ACTH secretion (night cortisol F: 22.1µg / dl), absence of suppression with dexamethasone 1mg and increased free urinary free cortisol 24h (243.5µg /24h). Abdominal CT scanning revealed a left-sided adrenal adrenocortical adenoma 1.5 mm in max diameter. Pituitary MRI and somatostatin scintigraphy were normal. Low dexamethasone suppression test was indicative of Cushing (F: 14µg / dl) followed by a combined CRH stimulation test during bilateral inferior petrosal sinus sampling. Pituitary / peripheral ACTH ratio pre-infusion of CRH and 3 min after CRH infusion was compatible with right-sided pituitary origin of ACTH hypersecretion. Pending the results of the laboratory, the patient showed a remission of his symptoms along with a laboratory-confirmed recession of active hypercortisolaemia (LDDST test), and this led to the suspicion of periodic Cushing syndrome. The patient was followed with clinical and laboratory examinations weekly, with recurrence of symptoms 2 months later followed by a new remission 3 months later. A PETGA CT SCAN with 68GA-HA-DOTATATE was performed, which showed an increased uptake of the radioisotope in the small intestine. A surgical excision of the affected small bowel region was performed according to the guidelines for intestinal NETs. Histology confirmed the existence of a well-differentiated neuroendocrine neoplasm of the small intestine of 1.1 cm diameter, grade 1 (WHO 2010). Immunophenotype was positive for serotonin and ACTH. Postoperatively, the patient showed a complete remission of symptomatology and regression of hypercortisolaemia over a 18-month period. Follow-up abdominal MRI and 68GA-HA-DOTATATE revealed no pathological findings. Conclusion: Our patient is the first case of ectopic Cushing disease caused by intestinal NET. The differential diagnosis between pituitary and ectopic Cushing syndrome due to ACTH or CRH hypersecretion is not easy and frequently complicated by the periodicity of the disease. In patients with no visible pituitary lesions on MRI we suggest further investigation for ectopic ACTH- driven Cushing syndrome.

Thyroid

THYROID NEOPLASIA AND CANCER

Prospective Evaluation of Patients with Encapsulated Classical Variant of Papillary Thyroid Cancer and Noninvasive Follicular Thyroid Neoplasm with Papillary-Like Nuclear Features (NIFTP): Have They A Similar Prognosis?

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Background: Our previous retrospective study demonstrated that the absence of tumor capsule or, if present, its invasion were independent risk factors for the persistence of the disease (OR 6.75, CI 1.97-23.08 and OR 7.89, CI 1.78-34.94, respectively) in papillary thyroid cancer (PTC). This data was confirmed also analyzing separately the most frequent PTC variants [follicular variant (FVPTC) and classical variant (CVPTC)]. Moreover, we demonstrated that the absence of tumor capsule was significantly more frequent in FVPTC *BRAF* V600E mutated than FVPTC wild-type for *BRAF* gene or with *rare-BRAF* mutations (e.g., *BRAF* K601E, *BRAF* V600_K601delinsE). These data confirmed the importance of the integrity of the tumor capsule in FVPTC which led in 2016 to the definition of a new thyroid neoplasm entity named NIFTP. According to these retrospective data, we have assumed that the integrity of the tumor capsule in CVPTC could have a prognostic role similar to that confirmed in the NIFTP group.
Methods: we have prospectively collected data of patients (pts) underwent total thyroidectomy or lobectomy for encapsulated-CVPTC (E-CVPTC) or NIFTP. In both cases the tumor was accurately analyzed by the pathologists according to the criteria used for the NIFTP (in particular with one capsule sample every 1 mm). All pts performed at least one clinical control and neck US within 6 months from surgery.
Results: From January 2018 to June 2019, 144 E-CVPTC and 177 NIFTP were prospectively collected. 83/144 (57.6%) E-CVPTC and 106/177 (59.8%) NIFTP cases were included. The others were excluded due to the presence of other thyroid tumors associated in the same gland. No differences in epidemiological and pathological features were found between E-CVPTC and NIFTP except for the tumor size, significantly bigger in NIFTP than E-CVPTC [22±16mm (2-68) *vs* 8±11mm (1-80), p<0.00]. A significantly higher rate of NIFTP' pts underwent lobectomy respect to E-CVPTC pts (34%*vs*14.5%, p=0.02). After a mean of 9 months of follow-up all pts had an excellent response according to ATA guidelines.
Conclusions: These prospective data demonstrated that NIFTP and E-CVPTC have a similar clinical behavior in a short-term follow-up, thus suggesting that the presence of an intact tumor capsule is predictive of a good outcome. A longer follow up is needed to confirm these initial interesting findings.

Tumor Biology

TUMOR BIOLOGY: GENERAL, TUMORIGENESIS, PROGRESSION, AND METASTASIS

The Effect of Hypertriglyceridemia on Triple Negative Breast Cancer Progression

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