of L-T4 treatment. The pretreatment FT4 and TSH serum concentrations (mean±SD) were 8.3±5.7 pmol/L and 338±248 mU/L, respectively. CH severity according to ESPE guidelines was severe, moderate and mild for 32%, 27% and 32% of the patients. Postnatal age (PNA) (mean±SD) at start of treatment was 10±12 days. Starting dose of L-T4 (mean±SD) for severe, moderate and mild CH were 10±4, 10±3, and 7±4 µg/kg/day, respectively. Over the study period, TSH TARs of 63% did not further improve between the first monitoring (mean at 17 days of treatment) and fourth monitoring (mean at 4 months of treatment), while FT4 TARs increased from 22% to 45% paralleled with a decrease of too high FT4 values from 55% to 21%.
Comparing patients with FT4 concentrations "OUT of" *versus* "IN" the target range at first time monitoring (16 *versus* 18 days after starting treatment; p=0.45), they did not differ in pretreatment FT4 concentrations (p=0.2). In contrast, patients who had FT4 concentrations "OUT of" *versus* "IN" the target range received first dose of L-T4 at an earlier median PNA (7 *versus* 16 days; p=0.008), had higher pretreatment mean TSH concentrations (364 *versus* 181 mU/L; p=0.02) and received a higher mean initial L-T4 dose (10.3 *versus* 7.1 µg/kg/day; p=0.01).
First, our results show that FT4 and TSH target ranges were not reached in all patients in the first six months of treatment. Second, our data suggest that TARs could be improved by individualizing initial L-T4 dosing not only according to pretreatment FT4 but also to pretreatment TSH concentrations. L-T4 dosing optimization is needed in this population.

Reproductive Endocrinology

HYPERANDROGENISM

Age-Specific Multiples of the Median Level of Serum Anti-Mullerian Hormone Is a Potential Marker for Diagnosis of Polycystic Ovary Syndrome

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Serum anti-Mullerian hormone (AMH) levels are significantly higher in women with polycystic ovary syndrome (PCOS) than in normal ovulatory women. Different diagnostic cut-off values of AMH for discriminating women with PCOS from normal controls have been proposed. This is attributed partly to the different assay methods used with different calibration, as well as the age-related changes in serum AMH levels. We propose that it may be more appropriate to use age-specific multiples of the median (MoM) of AMH value instead of a "one for all ages" cut-off as a diagnostic threshold. Hence, we conducted a retrospective study to validate the performance of age-specific MoM of AMH value in the diagnosis of PCOS. We studied on a cohort of 751 women presented to the clinic for menstrual disorders or fertility treatment, including 473 women diagnosed with polycystic ovary syndrome by the Rotterdam criteria and 278 normal ovulatory controls. Their archived serum samples, collected at the early follicular phase, were retrieved and assayed for AMH by the automated Access AMH assay. The MOM AMH of each subject was calculated based on the age-specific reference ranges recently established by our group. Our results showed that MOM AMH was significantly higher in women with PCOS compared to controls ($p<0.0001$). When stratified into five-yearly age groups, there was no significant difference in MOM AMH ($p>0.05$) among women with PCOS aged 21-25, 26-30 and 31-35 years, but those aged 36-40 years had significantly higher MOM AMH ($p<0.05$) compared to the other younger age groups. Among the ovulatory controls, no significant difference was observed in MOM AMH among all the age groups ($p>0.05$). The area under the receiver-operator characteristic curve was 0.852 (95% CI 0.825-0.877) ($p<0.0001$) for discriminating women with PCOS from ovulatory controls by MOM AMH. The best cut-off value of MOM AMH was 1.44, and the corresponding sensitivity and specificity were 76% and 79% respectively. At the fixed specificity of 80% and the corresponding sensitivity of 73% (with positive and negative likelihood ratios of 3.8 and 0.33 respectively), the cut-off value of MOM AMH was 1.5. In conclusion, age-specific MOM AMH is a promising surrogate of antral follicle count in the diagnosis of PCOS.

Neuroendocrinology and Pituitary

CASE REPORTS IN SECRETORY PITUITARY PATHOLOGIES, THEIR TREATMENTS AND OUTCOMES

Case of Mistaken Identity?

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SAT-273

Introduction Pituitary adenomas occur in 10-15% of patients and the majority are benign. Prolactinomas are the most common form of secretory pituitary adenoma. Pituitary apoplexy, a medical emergency with resulting visual loss and hormonal hyposecretion, requires rapid surgical intervention. We present a case of pituitary macroadenoma that underwent pituitary resection for acute visual disturbance which was later discovered to be caused by undiagnosed demyelinating disease.
Clinical Case Patient is a 32-year-old male who presented initially with complain of fatigue and decreased libido. Work up revealed elevated prolactin level and low testosterone. MRI showed a 2x3cm pituitary macroadenoma. At moment of diagnosis, patient was otherwise asymptomatic. He was started on bromocriptine. During follow up visits, patient reported visual disturbance. First MRI in our clinic showed no suprasellar extension, no impingement of optic chiasm and nonspecific white matter disease. At that time, visual field testing showed left temporal defect in superior quadrant. Follow up MRI 1 year later continued to show a stable macroadenoma without impingement of the optic chiasm, but patient reported progressive left vision disturbance and new right vision loss. He was evaluated in