total and free testosterone was 558 ng/dl (premenopausal; 10-55ng/dl) and 33.0 pg/ml, (0.8-1.4pg/ml), respectively. Patient subsequently had an ACTH stimulation test which showed an increase in 17-OH progesterone from 384 ng/dl to 657 ng/dl and a repeat showed an elevation from 204 to 322 ng/dl, ruling out a late onset CAH. She was then sent for pelvic sonogram which showed the presence of a left ovarian mass 4.9x 4.8x 4.8 cm and a pelvic CT scan confirmed a left ovarian mass measuring 6.8x5.5x 5.5 cm and an unremarkable right ovary. She underwent a laparoscopic unilateral salpino-oophorectomy and histology confirmed the diagnosis of an ovarian steroid cell tumor (NOS). Post-surgery, the androgen levels returned to normal. The patient is now being followed for recurrence.

CONCLUSION

Women who present with virilism should be evaluated adequately with comprehensive history taking and physical examination along with appropriate biochemical tests and imaging studies to confirm tumor location and plan for surgery.

Adrenal

ADRENAL - CORTISOL EXCESS AND DEFICIENCIES

Real World Estimates of Adrenal Insufficiency Related Adverse Events in Children with Congenital Adrenal Hyperplasia: On Behalf of the I-CAH Consortium

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MON-170

Background Although congenital adrenal hyperplasia (CAH) is a rare condition, it is the commonest cause of early-onset primary adrenal insufficiency and places the patient at a life-long risk of sick day episodes (SDE) and adrenal crises (AC). **Objective** To investigate the epidemiology of SDE and AC in an international cohort of patients <18 yrs old with 21-OH deficiency CAH. **Methods** Multilevel logistic model analysis of data in the International CAH (I-CAH) registry (www.i-cah.org) to examine the clinical associations of SDE, AC, stress-dose days and hospitalisations. **Results** 518 patients (F, 53%) from 34 centres in 18 countries with a median number of cases per centre of 12 (IQR 1-26), had a total of 5388 reported visits with a median duration of follow-up per patient of 3.1 yrs (IQR 2.5-5.8). Of the 518 patients, 334 (64%) had ≥1 SDE; the median number of SDE per patient year per centre was 1.0 (IQR 0.4-2.2) and the median duration of SDE was 3.0 days (IQR 2.0-5.0). Children between 1-4 yrs and adolescents (15-18 yrs) had a greater risk of SDE [OR 2.02 (95%CI:1.60,2.56) and OR 1.64 (95%CI:1.34,2.02), respectively] and stress-dosing [OR 2.03 (95%CI:1.56,2.60) and OR 1.63 (95%CI:1.32,2.02), respectively] compared to children <1 yr old. Males were more likely to have a SDE [OR 1.40 (95%CI:1.13,1.73) and stress-dosing [OR 1.40 (95%CI:1.12,1.76) than females. An AC was reported in 4% of SDE (62/1544) with 92% of visits associated with hospital admission. Infectious illness was the most frequent associated event and was reported in 72% (1105/1544) of SDE and 47% (29/62) of AC. Males had a higher risk of AC compared to females [OR 1.03 (95%CI:1.03,1.03). Children with salt-wasting CAH were more likely to be hospitalised during a SDE, compared with those with simple-virilising CAH [OR 2.08 (95%CI:0.99,7.91)]. Children receiving glucocorticoid (GC) doses within the hydrocortisone (HC) equivalent dose (ED) of 10-15mg/m^2/d were more likely to have SDE [OR 1.66 (95%CI:1.31,2.10), stress-dosing [OR 1.85 (95%CI:1.44,2.37) and AC [OR 1.08 (95%CI:1.08,1.08), p<0.001] than children on HC ED >15mg/m^2/day. Similarly, children on HC ED <10mg/m^2/d were more likely to have SDE [OR 2.20 (95%CI:1.66,2.90)], stress-dosing [OR 2.37 (95%CI:1.77,3.19)] and AC [OR 8.34 (95%CI:8.33,8.35), p<0.001] than those on higher doses. Children on FC doses between 50-200mcg/day and lower than 50 mcg were less likely to have AC [OR 4.54 (95%CI:4.54,4.55) and OR 8.58 (95%CI:8.57,8.59), respectively] than those on higher doses (>200mcg/day). Oral GC were increased in 74% (1147/1544) of SDE whilst HC injection was administered in 11% (176/1544) of SDE. **Conclusions** The real-world data within the I-CAH registry are a valuable resource for identifying factors that place a child with CAH at a higher risk of adverse events and can be used in prediction models for calculating individual risk.

Adipose Tissue, Appetite, and Obesity

RARE CAUSES AND CONDITIONS OF OBESITY: PRADER WILLI SYNDROME, LIPODYSTROPHY

Acquired Generalized Lipodystrophy: A Rare Side Effect of PD1-Inhibitor Therapy

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Background: Program cell death-1 (PD1) inhibitors, such as nivolumab and pembrolizumab, have shown efficacy as adjuvant treatment for cancers, including melanoma, and their frequency of use is increasing. A potential, but rare, side effect of PD1-inhibitors is acquired generalized lipodystrophy (AGL), an immune-related adverse event characterized by loss of subcutaneous adipose tissue (SAT) and insulin resistance-associated complications. AGL can result in irreversible endocrinopathies, including diabetes. **Clinical Case:** A 60-year-old overweight female (BMI 29.2), with no related metabolic complications or medical history of autoimmune disorders, was treated with nivolumab (240mg IV q2 weeks) for 1 year for metastatic melanoma on her right arm (staged T4bN2a) that underwent wide local resection. She completed therapy with no complications or lab abnormalities.One-month post-treatment, she noticed rapid weight loss and facial atrophy. Within 3 months, she had a 58% weight loss withsignificant loss of SAT; insulin resistance and diabetes(impaired fasting glucose 201; A1c 9.2%);hepatic steatosis diagnosed by liver biopsy;