(BMI ≥120% of the 95th percentile) obesity by PCOS status. Diagnosed PCOS was identified based on a visit diagnosis code for PCOS (ICD-9 256.4) within one year of the well child visit.
RESULTS: We identified 1478 adolescent girls (age 12-17) with obesity, among whom 76 (5%) had a PCOS diagnosis. The burden of PCOS varied by race, including 4% among white, 7% among black, 5% among Hispanic, and 8% among Asians, respectively. The proportion with diagnosed PCOS was greater in severely obese patients (9%) compared to moderately obese (3%). By race/ethnicity, the proportion with PCOS among moderately obese/severely obese girls were as follows: white 2%/8%, black 4%/10%, and Hispanic 2%/9%, respectively. The Asian population had a higher proportion of PCOS (10%) among girls with moderate obesity, as fewer Asian girls had severe obesity overall.
CONCLUSION: Among adolescent girls with obesity, the burden of PCOS varied by race/ethnicity and level of obesity. Increasing severity of obesity was associated with a greater proportion of girls having diagnosed PCOS, a trend that was reflected in white, black and Hispanic adolescent girls but not Asians, the latter due to their lower range BMI. These data highlight the prevalence of PCOS among adolescent girls with obesity and support the need for early identification and management prior to adulthood.

Diabetes Mellitus and Glucose Metabolism

CLINICAL STUDIES IN OBESITY, DIABETES RISK, AND CARDIOVASCULAR OUTCOMES

Comparison of CV Risk Scores to Evaluate Cardiovascular Risks in Thai Type 2 Diabetes

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SAT-613

Objective: Various cardiovascular risk scores have been developed and the RAMA-EGAT risk score was developed by Thai database with minority of diabetes. This study aims to compare the predictability of the ADVANCE, UKPDS, SCORE, Framingham Risk Score (FRS) and RAMA-EGAT risk score for carotid atherosclerosis, arterial stiffness and peripheral arterial disease in Thai T2DM patients. **Methods:** A cross-sectional study was conducted in T2DM patients without established CVD at a tertiary care hospital. Demographic and DM-specific data were collected. Carotid intima-media thickness (CIMT), carotid plaque, cardio-ankle vascular index (CAVI) and ankle-brachial index (ABI) were measured as the markers of atherosclerosis. Risks of CVD were calculated according to the ADVANCE, UKPDS, SCORE, FRS and RAMA-EGAT risk scores. These risk scores were correlated with the atherosclerotic markers by odds ratio using logistic regression and the proper points of the risk scores to predict atherosclerosis were calculated by the areas under the curve (AUC). **Results:** There were 180 T2DM participants with the mean age of 60-year-old, diabetes duration of 13 years and mean A1C 7.4%. The highest sensitive risk score was FRS, following by UKPDS, SCORE, ADVANCE and RAMA-EGAT risk score, which indicated high-risk patients as 44.8%, 27.6%, 18.9%, 13.8% and 0% accordingly. There were 40.3% of the patients with arterial stiffness detected by CAVI > 9, 24.0% with carotid atherosclerosis defined by CIMT > 0.07 mm or presenting of carotid plague and 8.3% with ABI < 0.9. The odds ratios (OR) of 4 risk scores increased by the quartiles for carotid plaque, CIMT, CAVI and ABI while the OR of RAMA-EGAT scores increased by the quartiles only for carotid plaque. The highest quartile of ADVANCE, UKPDS, SCORE and FRS significantly (P<0.01) increased the risk of abnormal CIMT; OR 2.64-8.75, carotid plaque; OR 1.51-11.21, CAVI; OR 11.38-19.00, and ABI; OR 1.18-12.57. The highest quartile of RAMA-EGAT score significantly increased the risk of carotid plaque; OR 5.35 (1.44-19.91) P<0.01. ROC analysis revealed that ADVANCE > 3.0% in 4-year, UKPDS > 11% in 10-year, fatal-SCORE > 6% in 10-year and FRS > 18% in 10-year were predictive of carotid atherosclerosis with sensitivity of 76-84% and specificity of 61-69% and they were predictive of arterial stiffness with the sensitivity of 71-80% and specificity of 64-68%. **Conclusion:** There was no significant difference when comparing the predictability of the ADVANCE, UKPDS, FRS and SCORE risk estimation for carotid atherosclerosis, arterial stiffness and peripheral arterial disease and they were more correlative with atherosclerotic markers than RAMA-EGAT score in Thai type 2 diabetic patients.

Adrenal

ADRENAL - TUMORS

Incidence, Patterns of Clinical Presentation, and Outcomes of Patients with Brain Metastasis Due to Adrenocortical Carcinoma

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SAT-178

Background: Adrenocortical carcinoma (ACC) is a rare and aggressive malignancy, with a heterogeneous but, frequently, dismal prognosis; patients with metastatic ACC have a five-year survival that ranges between 0 and 28%. Metastatic ACC may be present at diagnosis or during follow-up as disease recurrences. The most common sites of metastatic lesions include the liver, lungs, lymph nodes and bones. The brain has only rarely been reported as a site of

metastasis in this neoplasia and, to the authors' knowledge, little is known regarding the incidence, patterns of clinical presentation and disease progression, and outcomes.
Objective: The aim of this report was to describe the clinical characteristics of adult patients with ACC who developed brain metastasis evaluated at a tertiary oncological center (ICESP) from Brazil.
Methods: Retrospective analysis of medical records including evaluation of laboratory and imaging exams and pathologic data (in cases where surgical resection of the metastasis was performed).
Results: In the last ten years (2009-2019), fifty-four patients have been treated for ACC at ICESP; all of them with advanced disease (locally advanced disease and metastatic disease). The median age at the time of diagnosis of ACC was 44 (range 24-61 yrs.). No patients presented metastasis at central nervous system (CNS) at the initial diagnosis; however, during follow-up, we identified brain metastasis in six patients (11.1%). The median time between ACC diagnosis and the detection of brain metastasis was 20.8 months (range 5-53 mo.). In all of these six cases, at least three other sites of metastatic involvement were already present when the brain involvement was diagnosed and, therefore, all of them had already been treated with mitotane in association with at least one line of cytotoxic chemotherapy. The number of brain metastasis in each of these six patients varied from one to eight and median size of lesion was 1.7 cm (range 0.5-4.0 cm). Secondary headache and seizure were the main symptoms of presentation and one or two of these symptoms occurred in all but in one patient, in which diagnosis was due to screening with brain MRI. In four patients with stable disease elsewhere, surgical resection of one or two brain metastases was performed. In these cases, SF1-positive immunohistochemistry confirmed the adrenocortical origin of the lesion. The median time between CNS metastasis detection and death was 3.8 months (range 0.4-59.6 mo.), and complications due to brain metastasis were the leading cause of death.
Conclusions: In our institute, brain metastasis occurred in 11.1% of advanced ACC, a prevalence that is higher than previously reported in literature. Despite the relative small number of patients included in this study, we highlight the possibility of brain metastasis in patients with ACC, particularly in cases with a prolonged disease course and multiple systemic treatments.

Neuroendocrinology and Pituitary

CASE REPORTS IN SECRETORY PITUITARY PATHOLOGIES, THEIR TREATMENTS AND OUTCOMES

Use of Double Dopamine Agonists in Giant Prolactinomas: A Series of 6 Cases

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SAT-247

Dopamine agonist monotherapy is first line therapy in giant prolactinomas even when visual field defect is present. The costlier cabergoline is often preferred over bromocriptine due to higher efficacy and tolerability profile. Described herein combined cabergoline and bromocriptine therapy in 6 cases of giant prolactinomas. Retrospective records review of 6 patients with giant prolactinoma (3 males: M1-M3, 3 females: F1-F3) in a single tertiary centre was performed. Mean age at diagnosis: 29 years (range 17-39). Mean duration of follow up: 7 years (range 3-11). Headache and visual field defect were the presenting symptoms in all cases. Basal prolactin concentration: 100000 to 468851 mIU/L (<300 for male, <600 for female). Three patients have hypopituitarism at presentation, one after surgery and one remained eupitary 5 years after diagnosis. One developed late onset hypopituitarism 4 years after normalisation of prolactin levels. Three patients underwent debulking at presentation because of significant mass effects with obstructive hydrocephalus. In all patients cabergoline 1-1.5 mg/wk was started at diagnosis and gradually increased to 0.5 mg daily, aiming for normoprolactinemia. From May 2017 bromocriptine were given to these patients who continued to have hyperprolactinemia despite cabergoline 3.5-4mg/wk. Bromocriptine was commenced 1.25-5mg/day and gradually increased to 10 mg/day on top of cabergoline with careful monitoring of prolactin levels and side effects. Cabergoline was tapered down to 1.5-2mg/wk if prolactin levels remained stable between 2-3x normal while maintaining dose of bromocriptine. In M1, cabergoline was tapered off while maintaining bromocriptine 10mg/day with stable prolactin levels (~1000 mIU/L). In M2, normoprolactinemia was achieved after adding on bromocriptine and is currently on cabergoline 2mg/week and bromocriptine 10mg/day. In M3, whose prolactin were 4x normal value despite cabergoline 3.5mg/week, decreased 50% with bromocriptine 5 mg/day and remained stable when cabergoline reduced to 1.5mg/week. F1 had transphenoidal section twice due to failure of medical therapy. Her prolactin remained markedly elevated 10000-20000 mIU/L despite cabergoline 3.5 mg/week and bromocriptine 10mg/day, with persistent bitemporal hemianopia. F2 developed erythema nodosum after starting bromocriptine which was stopped and continued with cabergoline 1 mg/week. F3 showed partial response with 50% reduction in prolactin to 4485 mIU/L with bromocriptine 10 mg/day and cabergoline 1.5mg/week. In patients who underwent debulking, residual tumour remained unchanged. Two patients - tumour shrank 40% (F2) and 90% (M3) with medical therapy alone. In conclusion, adding on bromocriptine can be considered when high dose cabergoline is required for treatment of giant prolactinoma with careful monitoring. This reduces cabergoline dose which saves cost.

Genetics and Development (including Gene Regulation)

ENDOCRINE DISRUPTING CHEMICALS

Computational Study of the Effect of Androgen Receptor BF 3 Site Mutations on DDE Binding

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SAT-712

Exposure to endocrine disrupting chemicals (EDCs) affects the function of the androgen receptor (AR) causing