

had incomplete elementary school ($n = 23$, 39%), did not work ($n = 31$, 52.5%), and were in socioeconomic class C1 ($n = 24$, 40.7%). BMI before BS was 49.70 ± 1.25 kg/m² (mean \pm S.D.). The last available BMI after surgery (assessed within 30 days from the assessments) was 33.60 ± 7.31 kg/m². The mean postoperative follow-up time at assessment was 47.76 ± 3.04 months. Most participants were above the cutoff points for binge eating disorder ($n = 54$, 91.5%) and impulsivity ($n = 45$, 76.3%). The overall sample showed food AB (16.30 ± 7.09) when food stimuli were exposed during 2000 msec, suggesting a conscious attention towards food stimuli ($t(58) = 2.303$, $p = .025$, $d = 0.29$). SO and non-SO were compared using post-operative time as a covariate. Food AB was significantly higher in SO (24.06 , SEM 8.55) than in non-SO (-12.98 , SEM 8.11) when food stimuli were exhibited during 500 msec, indicating a pre-conscious attention to food stimuli in SO ($F(2, 106) = 5.124$, $p = .008$, $\eta^2_{\text{partial}} = .083$). At 500 msec, AB value was significantly different from 0 only in SO ($t = 2.763$, $p = .010$, $d = 0.53$, $n = 27$), indicating an AB to food stimuli when attention orientation was less possible. Overall, the food AB observed in the whole sample indicates that all patients show a conscious attention toward food stimuli after BS, which may influence weight maintenance. Notwithstanding, the result was different when SO and non-SO were compared considering the post-operative time. The longer the time elapsed since surgery, the higher the food AB at 500 msec in SO. Given that SO patients have a higher risk of weight regain, these data suggest that a non-conscious AB after bariatric surgery may be one of the inductors of food ingestion, thus predisposing to weight regain.

Diabetes Mellitus and Glucose Metabolism

PREGNANCY, LIPIDS, AND CV RISK — IMPACT OF DIABETES ACROSS THE SPECTRUM

Sex and Ethnic Differences in Advanced Lipoprotein Profiles in South Asians, African-Americans, and Caucasians

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Background: African-Americans (AA) and South Asians (SA) are known to have higher risk for T2D and cardiovascular disease (CVD) compared to Caucasians (CA). Advanced analysis of lipoprotein particles with nuclear magnetic resonance (NMR) spectroscopy can offer insights into CVD risk and lipid metabolism beyond a standard lipid panel. Insulin resistance (IR) is known to be associated with atherogenic lipoprotein profile.

Objective: To characterize the lipoprotein profile in AA, CA, and SA men and women.

Design: A cross-sectional study of 182 healthy, non-diabetic SA, AA and CA patients was conducted at NIH. Subjects underwent an intravenous glucose tolerance test from which insulin sensitivity (Si) was derived using the Minimal Model. Lipoprotein profiles were measured by NMR with the LP4 deconvolution algorithm, which reports

triglyceride-rich lipoprotein particles (TRLs), high-density lipoprotein particles (HDLs), and low-density lipoprotein particles (LDLs). For group comparisons, Si was adjusted for age and fat free mass. Lipoprotein parameters were adjusted for age and body fat %.

Results: Fifty-nine non-diabetic SA (33 males, 26 females), 49 AA (26 males, 23 females), and 74 CA (29 males, 45 females) were included in the study. Ethnic differences in Si were observed in men ($p = 0.002$) but not in women ($p = 0.43$). SA men had a significantly lower Si than both AA and CA men ($p = 0.02$). TG concentrations and TRL particle number were significantly higher in CA men and women when compared with AA. TRL size was not different between the ethnic groups in either sex. LDL particle number and ApoB concentration was significantly higher in SA men and women compared to AA and CA. There were no ethnic or sex differences in LDL size. HDL concentration, HDL particle number, and ApoA-I levels were not different between the groups in both sexes. However, in SA, large HDL particle number and HDL particle size was significantly lower than CA. Cholesteryl ester transfer protein (CETP) activity was significantly higher in SA men, but not women, when compared with AA and CA. Ethnic differences in LDLP and L-HDLP number remained even after adjusting for Si.

Conclusions: In SA men and women, the lipoprotein phenotype (higher LDLP and lower L-HDLP) is independent of insulin sensitivity. Increased CETP activity may contribute to the lower large HDL particle number in this group. In AA, TG and TRL number were lower as previously reported. Further investigation is needed to determine the factors mediating the atherogenic profile in SA.

Pediatric Endocrinology

PEDIATRIC ENDOCRINE CASE REPORTS II

Autonomy and Self-Determination in a Patient with XY Gonadal Dysgenesis.

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MON-075

Background:

XY gonadal dysgenesis is characterized by the presence of male chromosomes with atypical testes differentiation. Due to an impaired ability to make testosterone, patients are often under-virilized at birth and present with ambiguous genitalia. For multidisciplinary teams specialized in disorders of sex development (DSD), gonadal dysgenesis presents challenges in sex assignment, initiation of hormonal therapy, and timing of surgical interventions. Recent discussions have reconsidered early interventions in favor of preserving self-determination in decisions regarding gender and anatomy.

Case:

LT initially presented at 3 years old, after her grandmother noted her abnormal appearing genitalia. Examination revealed clitoromegaly, 1.8 cm in length and 0.8 cm in width, with a blind, open introitus. XY gonadal dysgenesis was diagnosed, based on a pelvic MRI, cystourethroscopy/vaginoscopy, genetic and hormonal testing.

LT was lost to follow-up for 6 years. At 11 years old, LT had been consistently raised as a female. When asked about gender identity, LT's understanding of gender identity developed over time. At 11 years old, LT declared her gender identity as a "boy", because boys are "strong", and because she did not like make-up. LT denied any desire for breast development and explained that her family told her that breasts 'make it hard to run fast.'

On follow-up evaluation 6 months later, LT voiced her decision to be a girl, and said that she was very confident in this decision. LT and her parents both desired estrogen therapy for induction of puberty. After discussions regarding the permanent effects of therapy, LT started hormone therapy. Two months after initiation of therapy, she remained firm in her gender identity and expressed a desire to grow her hair long. She independently stated that she did not desire surgery at this time. She will receive formal psychological testing at her next clinical evaluation to evaluate her for body dysmorphism, anxiety, and depression.

Discussion

LT's case demonstrates the progression of developmental understanding of gender and expressed gender identity that may occur as learning progresses in patients with DSDs. This case also shows that a delay in surgery may not have significant developmental consequences to these patients as was previously suggested. In general, the American medical system has tended to perform early sex assignments and surgical interventions to align anatomy with the sex assignment. However, after thoughtful discussions regarding human rights concerns, many have recommended to delay surgical interventions until adolescence, when the patient can consent appropriately to interventions that cause permanent anatomic changes. As many of these interventions may be discussed in early adolescence, it is of the utmost importance that information is presented in an understandable and developmentally appropriate manner.

Neuroendocrinology and Pituitary

CASE REPORTS IN CLASSICAL AND UNUSUAL CAUSES OF HYPOPITUITARISM II

Mycobacterium Fortuitum Infection Mimicking Sellar Chondrosarcoma in a Non-Immunosuppressed Patient: An Unusual Cause of Hypopituitarism and Oculomotor Nerve Palsy

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MON-235

A 32-year old male patient of central African origin presented with diplopia and left eyelid ptosis. He described a 2-month history of fatigue, weight loss (8 Kg), headaches, diffuse myalgia and night sweats. Clinical examination revealed cavernous sinus syndrome with left eyelid ptosis and weakness of eye adduction. Magnetic resonance imaging of the brain demonstrated a 36 mm mass centered on the left petroclival suture, infiltrating the sella and the pituitary gland, the ipsilateral orbital apex as well as the cavernous sinus bilaterally. The mass showed heterogeneous

enhancement after gadolinium injection, with elements of central necrosis and was associated with an extensive bone destruction. These radiologic features raised the hypothesis of chondrosarcoma. Chest computed tomography demonstrated multiple lung micro-nodules suspect of metastasis. Laboratory testing of the anterior pituitary function revealed low free-T4 (11 pmol/l, n = 12-22) with normal TSH (0.4 mUI/l, n=0.3-4.2), low total testosterone (1.5 ugr/l, n = 3.3-8.1) with normal LH and FSH and slight hyperprolactinemia (27 ugr/l, n = 4-15). IGF-1, 24-h urinary free cortisol, as well as morning serum cortisol and cortisol after 250 mcg ACTH stimulation test were normal. There was no evidence of diabetes insipidus. Levothyroxine was prescribed. Craniotomy was performed, for left optic nerve decompression and biopsy of the mass. Pathologic examination revealed granulomatous, giganto-cellular and necrotizing inflammation, but no evidence of malignancy. PCR for Mycobacterium tuberculosis complex was negative but Mycobacterium fortuitum was detected in sputum and also confirmed in cerebral biopsy latter. Other causes of granuloma were excluded (brucellosis, cat scratch disease, histoplasmosis, syphilis, coccidioidomycosis, tropical germs etc.). Different causes of immunosuppression (including HIV) were excluded. The patient was treated with amikacin, isoniazid and ciprofloxacin for several months and improved gradually. MRI performed one year later demonstrated significant decrease on the size of the sellar mass (more than 50% of its initial size). Central hypogonadism regressed spontaneously with decrease in tumor size, and normal testosterone levels were achieved at one-year follow-up (7 ugr/l, n = 3.3-8.1). Mycobacterium fortuitum infections of the sella turcica are poorly described in literature in non-immunosuppressed individuals. Although usually not pathogenic, histopathological examination, identification in the CNS lesion and the lungs and response to treatment are convincing evidence of a causal relationship. Differential diagnosis from malignant lesions is challenging and biopsy is necessary in order to establish the cause and offer adequate treatment.

Bone and Mineral Metabolism

OSTEOPOROSIS: DIAGNOSIS AND CLINICAL ASPECTS

Efficacy of Low Dose Denosumab in Maintaining Bone Mineral Density in Postmenopausal Women with Osteoporosis: A Real World, Prospective Observational Study

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Introduction: Denosumab, a fully human monoclonal antibody to RANK-ligand, has been shown to increase bone mineral density (BMD) and reduce the risk of hip, vertebral