markedly elevated thyroglobulin and TSI. PET/CT scan showed focal area of mild FDG avidity, corresponding to the right iliac crest mass, without additional areas of FDG avidity suggestive of metastatic disease or primary neoplastic process. Three weeks after presentation, patient began having symptoms of hyperthyroidism. As FT4 and FT3 continued to rise, she was started on propranolol and methimazole. Due to inadequate response, methimazole was switched to high dose propylthiouracil with mild improvement. Thyroid uptake and scan and SPECT/CT revealed increased thyroid uptake and thyremegaly consistent with Graves’ disease and redemonstrated large right IC lesion with increased uptake in the periphery and central photopenia, suggesting metastatic thyroid malignancy. Pathology from total thyroidectomy reported encapsulated follicular variant of PTC, confined to the left lobe of the thyroid, without extrathyroidal extension, greatest tumor dimension 0.6cm. As metastasis to the IC were unlikely to have originated from this small encapsulated thyroid cancer, it was recommended to proceed with right oophorectomy for suspected malignant struma ovarii and IC lesion debulking. Surgical pathology revealed right ovary and fallopian tube without pathologic changes or features of teratoma and tissue from right iliac mass consistent with PTC. Patient is off all antithyroid medications and remains biochemically euthyroid, awaiting radioactive iodine therapy.

Thyroid

THYROID CANCER CASE REPORTS II

SPECT/CT Localization of Incidental Diverticular Bleed After Radioiodine (131I) Therapy for Metastatic Thyroid Cancer

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Background: Radioiodine therapy for patients with metastatic papillary and follicular thyroid cancer status post total thyroidectomy improves overall survival and is standard of care. Physiologic and pathologic biodistribution of 131I is dependent on tissue sodium-iodine symporter expression with nonspecific radioiodine distribution seen secondary to physiologic routes of excretion. Clinical Case: Whole body scintigraphy (WBS) was performed seven days after 131I therapy in a 37-year-old male treated for metastatic papillary thyroid cancer with extension to a thyroglossal duct cyst at the time of surgery. His post-procedural course was complicated with the exception of self-limited hematochezia six days after ablation. WBS images demonstrated a focus more superiorly in the neck concordant with metastatic thyroglossal duct cyst involvement. Activity was also present in the small and large bowel distribution reflecting normal routes of radioiodine excretion. WBS images depicted a discrete focus of radioiodine activity in the right lower quadrant, which SPECT/CT further localizes as activity in the sigmoid colon. Non-contrast CT images demonstrate an associated linear pattern of hyperdense hypervascularization in the colonic lumen consistent with fresh blood. It is well established that the physiologic and pathologic biodistribution of 131I is dependent on tissue sodium-iodine symporter expression with additional distribution secondary to normal routes of excretion. Nonspecific radioiodine localization has been described at sites of inflammation secondary to vasodilation and increased vascular permeability resulting in leakage and accumulation in tissues. Sodium-iodine expression is found in many tissues, including salivary glands, lactating mammary glands, gastric mucosa, thymus, and small bowel; however, they are not expressed in the colon, nasopharyngeal mucosa, or orbital fibroblasts. 131I localization has been previously described within numerous body diverticula, such as Zenker’s and Meckel’s diverticulum; however, radioiodine activity in association with an acute colonic diverticular bleed has not been reported.

Conclusion: We propose that the isolated focus of radioiodine activity in the sigmoid colon associated with transient self-limited bleed could be either related to preexisting diverticulitis leading to 131I accumulation secondary to hyperemia, increased vascular capillary permeability, and subsequent aggravation of colonic mucosa resulting in a transient bleed or due to incidental nonspecific pooling of radioiodine in a colonic diverticulum resulting in secondary mucosal irritation with subsequent minor bleeding. To our knowledge this is the first reported case of SPECT/CT localization of radioiodine to an isolated colonic diverticular bleed in a patient status post 131I therapy for metastatic papillary thyroid cancer.

Adipose Tissue, Appetite, and Obesity

OBESITY TREATMENT: GUT HORMONES, DRUG THERAPY, BARIATRIC SURGERY AND DIET

Conscious and Pre-Conscious Attentional Bias to Food in Patients Submitted to Bariatric Surgery

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Obesity is the result of a positive energy balance. Cognitive biases have been shown to co-occur with obesity, highlighting the hypothesis that certain cognitive functions increase the risk for obesity. Attentional bias (AB) to food stimuli is one of the cognitive components that seem to contribute to the onset and course of obesity. The treatment of obesity still represents a major health challenge. The most effective treatment for severe obesity is bariatric surgery (BS). Patients with higher degrees of adiposity – the so-called “superobese” (SO), whose body mass index (BMI) is ≥ 50 kg/m2 - seem to lose more weight after BS than the non-SO patients. On the other hand, SO patients are more likely to regain weight. Differences in behavior and cognition before and after BS may explain weight regain differences. The aim of this study was to assess food AB in a sample (n = 59) submitted to Roux-en-Y gastric bypass (RYGB) and to compare food AB between the subjects who were SO before surgery, and those who were non-SO. 59 patients underwent anthropometric assessment, clinical interview, psychometric questionnaires, and AB behavioral assessment. Participants were mostly white (n = 46, 78%),...
Subjects underwent an intravenous glucose tolerance test (IVGTT) and a cystourethrocystovaginoscopy (CUVC). 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. TRLP 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, LDL particle number, and ApoA-I levels were not different between the groups in both sexes. However, in SA, large HDL particle number and LDL 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 TRLP number were lower as previously reported. Further investigation is needed to determine the factors mediating the atherogenic profile in SA.

Diabetes Mellitus and Glucose Metabolism

PREGNANCY, LIPOIDS, 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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OR08-05

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 (NMRE) 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. 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 (TRLPs), high-density lipoprotein particles (HDLPs), and low-density lipoprotein particles (LDLPs). 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. TRLP 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, LDL particle number, and ApoA-I levels were not different between the groups in both sexes. However, in SA, large HDL particle number and LDL 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 TRLP 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.