resection) was signigicantly reduced amongst patients with presence of SSTR2.

Conclusion: In this preliminary study there was no significant association between SSTR2 expression and Progression free survival, however the need for additional therapy in patients on somatostatin analogues were reduced among subjects with presence of SSTR2 expression

Cardiovascular Endocrinology

HYPERTRIGLYCERIDEMIA; INFLAMMATION AND MUSCLE METABOLISM IN OBESITY AND WEIGHT LOSS I

Asparaginase Induced Severe Hypertriglyceridemia Requiring Multiple Plasmapheresis Sessions

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SAT-LB91

Background: Asparaginase (ASP) is an essential component of chemotherapy for acute T-cell lymphoblastic lymphoma (T-ALL). Hypertriglyceridemia (HTG) is a known side effect of ASP therapy in children and adults (incidence up to 67 and 12.5%, respectively). The mechanism of HTG is multifactorial and involves lipoprotein lipase (LPL) suppression. Acute pancreatitis can occur in 13% of patients. There are no treatment guidelines currently available for ASP-induced HTG.

Clinical Case: A 33 year old male with history of prediabetes, HTG and T-ALL being treated with CALGB 10403 chemotherapy protocol (vincristine, methotrexate, cytarabine and pegylated-ASP) presented to the ED with acute onset abdominal pain radiating to the back with associated nausea. He denied alcohol use. Home medications included fenofibrate, metformin and atorvastatin. His TG level prior to initiating chemotherapy was 454 mg/dL (ref range < 150) with an HbA1C of 6.5%. Upon presentation; TG level was 11,650 mg/dL, lipase was 563 U/L (13-60) with CT abdomen findings suggestive of mild pancreatitis. He was treated in the ICU with insulin drip at 0.05 - 0.1 unit/kg/hr with repeat TG level 6,490 mg/dL after 48 hours. He eventually required 5 serial plasmapheresis sessions over a 10 day hospital course in order to achieve a goal TG level under 500 mg/dL.

Conclusion: ASP is part of standard multiagent chemotherapy for patients with ALL however poses the risk of developing severe HTG. This side effect may be explained by multiple mechanisms including increased synthesis of very low-density lipoprotein (VLDL), decreased LPL activity as a result of an increase in the apoCIII/apoCII ratio, and increase in serum chylomicrons. Studies have shown patients who had extreme HTG had a higher frequency of ApoE3/4 phenotype, suggesting that screening for ApoE polymorphism may identify patients at high risk for developing this. HTG secondary to ASP is often asymptomatic, with severe elevations in TG levels observed around 10 days after the 3rd administration of ASP and resolving 2-3 weeks after drug discontinuation. There are no treatment guidelines for ASP-associated HTG as there is no single typical clinical course. Management for severe HTG includes insulin infusion and plasmapheresis. Insulin rapidly activates LPL leading to mean TG reduction of 50% within the first 24 hours as compared to 66% reduction after single plasmapheresis therapy. However, there is paucity of data regarding the appropriate insulin dose and whether there is a linear dose-response in TG level reduction. Further studies are required to develop standard treatment guidelines for ASP-induced HTG which may help alleviate serious complications such as acute pancreatitis.

Reference: Tozuka et al "Characterization of hypertriglyceridemia induced by L-asparaginase therapy for acute lymphoblastic leukemia and malignant lymphoma." *Annals of Clinical & Laboratory Science* 1997

Reproductive Endocrinology

FEMALE REPRODUCTION: BASIC MECHANISMS

Compounded Testosterone Preparations Raise Testosterone Levels to Premenopausal Ranges in Postmenopausal Women With Hypo-Sexual Desire Disorder (HSDD).

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MON-LB002

Introduction

Testosterone (T) in women declines with age. T levels cannot differentiate women with or without HSDD. T therapy approximating upper physiologic premenopausal levels improves all domains of sexual desire, libido, and decreases sexual distress[1,2]. As of 2020, there are no FDA-approved T preparations for women. Male preparations of T are frequently used off-label to treat HSDD. No peer-reviewed data exists on T levels achieved with compounded testosterone preparations from a single reliable source. This study assesses efficacy of four compounded T preparations to raise T levels, using typically recommended doses. T was obtained from a single Pharmacy Compounding Accreditation Board (PCAB)-certified pharmacy.

Methods

Twenty-six matched baseline and post-treatment T levels were obtained as part of standard care for post-menopausal women (age 61±6 years) 3 months after being prescribed T for HSDD. T was obtained from the Women's International Pharmacy. T doses were 0.5-2.0 mg/day, 6 days a week, using 4 methods of administration based on patient's preferences: 1) cutaneous cream to skin (CS) behind the knees (n=12); 2) intravaginal suppositories (IVS) (n=5); 3) intravaginal oil-capsules (IVoil-C) (n=7); and 4) vulvar cream (VC) (n=2). Mean T dose was 1.5±0.6 mg/day. All patients gave consent for use of their T data, and were compliant with treatment for a week prior to testing. Measures of total T were performed by MS/LC, and of free T by equilibrium dialysis. Normal ranges for total T is 15-70 ng/dl and free T is 0.5-6.5 pg/ml. Paired T-tests comparisons between baseline and treatment values where done within each group where n was sufficient. (*p<0.05, **p<0.01).

Results:

Baseline and treatment total T (ng/dl) were 18.3±3.6 and 55.3±5.2** for CS, 19.8±4.3 and 56.6±15.9 for IVS (p=NS), 23.0±3.2 and 89.2±23* for IVoil-C, and 25.0±3.0 and 182±47 for VC. Baseline and treatment free T (pg/ml) were

1.18±0.26 and 4.16±0.6** for CS, 1.12±0.2 and 3.46±1.3 for IVS, 1.60±0.2 and 5.95±1.2* for IVoil-C, and 1.36±0.4 and 9.45±1.2 for VC. Testosterone administration by CS or IVoil-C significantly increased testosterone levels to the upper normal premenopausal range in women with HSDD.
Conclusion
Treatment of HSDD in postmenopausal women with compounded T via CS or IVoil-C, at doses of 0.5-2.0 mg, effectively raises T levels to upper premenopausal range. Vaginal oil capsules may be particularly useful in avoiding accidental hormone contact by other household members. A FDA-approved form of T replacement would be a welcome treatment for women with HSDD.
1. Islam RM et al. Lancet Diabetes-Endocrinology (7):754-66, 2019.
2. Davis SR. Climacteric, 22:5,429-434, 2019.

Adrenal

ADRENAL - TUMORS

Surgery Outcomes for Patients With Primary Aldosteronism Who Show Normal-Appearing Adrenals on Computed Tomography but Unilateral Disease on Adrenal Venous Sampling

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SAT-LB41

Background: The primary aldosteronism (PA) subtype is usually confirmed by computed tomography (CT) and adrenal venous sampling (AVS). However, the subtype diagnosis by AVS is not necessarily consistent with the subtype diagnosis by CT. Patients with PA who show normal-appearing adrenals on CT but unilateral disease on AVS (CT-negative and AVS-unilateral group) are often found. However, few studies have focused on them, despite a discrepancy between CT and AVS subtype diagnosis. **Objective**: The aim of this study was to evaluate the clinical features of CT-negative and AVS-unilateral group and assess whether they obtain benefits from surgery. **Methods**: We retrospectively analyzed 362 consecutive patients with PA who underwent both CT and adrenocorticotropic hormone (ACTH)-unstimulated AVS at Kanazawa University Hospital. First, the patients were divided into normal-appearing adrenals, bilateral adrenal nodules, or unilateral adrenal nodules based on CT findings. Second, they were classified as having unilateral or bilateral disease based on ACTH-unstimulated AVS. The criterion for successful selective catheterization was selectivity index >2 and unilateral aldosterone overproduction was confirmed by lateralized index ≥2. Among the group with normal appearing-adrenals on CT, we examined preoperative clinical characteristics between those with unilateral disease on AVS and those with bilateral disease on AVS. In addition, we compared surgical outcomes of CT-negative and AVS-unilateral group with those of CT-unilateral and AVS-ipsilateral group (patients with unilateral lesions on CT and ipsilateral disease on AVS). The Surgical outcomes for unilateral PA were evaluated according to the criteria of the Primary Aldosteronism Surgical Outcome study. **Results**: The success rate of AVS in patients with normal-appearing adrenals on CT was 88% (167/190). Furthermore, the discordance rate between CT and AVS in patients with normal-appearing adrenals on CT was 36% (60/167). There were no significant differences in preoperative clinical characteristics between the CT-negative and AVS-unilateral group (n=60) and the CT-negative and AVS-bilateral group (n=107). After surgery, the CT-negative and AVS-unilateral group (n=14) had a lower complete biochemical success rate than the CT-unilateral and AVS-ipsilateral group (n=30) (43% vs. 80%, p=0.02), but clinical and biochemical benefits (the complete and partial success combined) were not significantly different between them (71% vs. 93% (p=0.07) and 71% vs. 90% (p=0.13), respectively). **Conclusion**: The clinical features of CT-negative and AVS-unilateral group were significantly similar to those of CT-negative and AVS-bilateral group. They benefited from surgery, and AVS should be performed for patients who pursue surgical management when the CT findings suggest normal-appearing adrenals.

Healthcare Delivery and Education

EXPANDING CLINICAL CONSIDERATIONS FOR PATIENT TESTING AND CARE

Behavioral Genotypes Associated With Adults With Obesity

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MON-LB303

Behavioral Genotypes Associated with Adults with Obesity
Abstract: The use of genetic testing to assist patients with weight loss is still relatively new. Genetic testing offers increased understanding of obesity risk, behaviors that can contribute to weight and much more. Research shows that patients are favorable to learning about how genetics influences their weight. As part of a larger project, this study aimed to identify the frequency of genotypes that influenced eating behavior traits of overweight and obese patients attending a medical weight loss clinic in southern California. All study procedures were approved by appropriate institutional review boards and administrators prior to initiation of the study. We used a quantitative retrospective design to identify participants with atypical eating behavior traits, i.e., (eating disinhibition, food desire, hunger, satiety, snacking, sweet taste, and the FTO obesity gene. The data were extracted from 75 genetic reports of patients who had completed a saliva sample with Pathway Genomics, San Diego, CA between 2017-2018. Analysis showed that 56 (75.7%) patients screened positive for eating disinhibition and 37 (50%) for food desire, whereas 29 (39.2%) were identified with the FTO gene. Also, 20 (27.0%) patients were positive for sweet taste, 13 (17.6%) satiety, 13 (17.6%) snacking, and 7 (9.46%) hunger.