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MON-LB308

Context. The transition period between pediatric and adult medicine is associated with poor patient outcomes and an important number of patients lost to follow up. Intervention exist but the few published randomized trials do not allow to study long-term patient outcomes nor intervention sustainability in time. **Objective.** Describe the cohort of patients in adult care who benefit from a new transition program based on case management approach, its activity and follow-up outcomes. **Methods.** A longitudinal study was led since September 2016 in adult services of endocrinology, nutrition and diabetology of a French University Hospital. Patients with any endocrine disease diagnosed during childhood and transferred to adult care were included. The care pathway for these patients was built in three steps. Step 1 is dedicated in liaising with pediatric services and patient to facilitate its first visit in adult care. Step 2 defines the care pathway in adult service based on the needs assessment realized by the coordinator upon the patient's arrival in adult service. Step 3 focuses in liaising with structures outside hospital (GP, educational and social sector). Thorough the follow-up, the coordinator is identified as the key contact by the patients. Attendance to medical appointments, clinical, and social data are collected throughout patient follow-up. **Results**. Since 3 years, 500 patients benefited from the case management mainly for their obesity (n=91, 18%), type 1 diabetes (n=54, 11%), malignant brain tumor (n=68, 14%) or congenital hypopituitarism (n=42, 8%). They were aged 19 in median at transfer in adult care, sex ratio: 0,5, A large majority live in the parental home (409, 82%), 169 (34%) are university students, 130 (26%) are in high school, 90 (18%) are in medico-social institution. Patients who required most of support from the coordinator usually combine one (or more) somatic disease and either a neuro-cognitive disorder or a psychiatric disorder, they all have social difficulties. In patients with more than 3 months of follow-up (median: 18 months), 22/418 (5%) are out of follow-up. Concerning the patients for whom the follow-up is 36 months or more, the percentage of out of lollow-up is the same: 5% **Conclusions.** The case manager addresses the complex needs of diverse patients. With time, the cohort will provide unprecedented long-term results of patients with various conditions who went through transition.

Reproductive Endocrinology

TRANSGENDER MEDICINE AND RESEARCH

Cross Sex Hormone Therapy and Breast Cancer in Transgender Male to Female

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SUN-LB8

Case Presentation: We are presenting a 53-year-old Male to Female transgender patient who has been receiving estradiol valerate injections every 14 days for 13 years and had no gender surgical reassignment procedures or breast implants. Her past medical history was significant for HIV on Highly Active Anti-retroviral therapy (HAART). No family history of breast cancer. She presented with severe bilateral left elbow, lower back and bilateral chest pain for 3 days. Chest CT done to exclude pulmonary embolism showed an incidental 4 cm right breast mass. Enlarged lymph nodes in the right axilla, scattered lytic lesions in the axial skeleton and the left humeral head were also noted. Breast exam was not performed until the significant findings were seen in CT chest and it showed a palpable hard-circumscribed subareolar right breast mass without skin changes. Ultrasound guided biopsy of the breast mass confirmed invasive ductal carcinoma of the breast. The patient had no previous mammogram testing. Oncology work-up was positive for estrogen and progesterone receptors but negative for human epidermal growth factor-2 receptor. The patient opted to return home in another state to seek treatment and further oncological workup but subsequently lost follow up. **Discussion:** Male to female breast cancer was first recognized in 1968. However, risk factors for this condition remain unclear. In our patient, long-term use of Cross-sex Hormone Therapy (CHT) represented a major risk factor for breast cancer. In a Dutch study, the risk of breast cancer increased during a relatively short duration of CHT and the cancer characteristics reassembled female pattern. As theoretically implicated, increased estrogen exposure in males may have a role in the proliferation of neoplastic breast epithelium. There are growing evidence to support increasing rates of breast cancer in HIV-positive population, making it a potential risk factor as well. Loss of CXCR-4 protective effect promoted by HIV virus may explain the increase in the breast cancer incidence after the introduction of HAART. In general, routine screening for breast cancer in MTF transgender population remains controversial. The Endocrine Society Clinical Practice guidelines suggest that MTF transsexual individuals who have no known increased risk of breast cancer should follow screening guidelines for biological women. While the Canadian Cancer Society recommends screening mammography every two years for MTF individuals taking CHT for more than 5 years and those between the ages of 50 and 69 years.
Conclusion: Breast cancer in MTF transgender patients is associated with receiving CHT and represents diagnostic and treatment challenge. More research is need to comment on routine breast cancer screening in this population. However, physicians should remember performing a regular breast exam in MTF individuals looking for a possible mass.

Thyroid

THYROID DISORDERS CASE REPORTS IV

Thyrotoxic Periodic Paralysis in Hispanic Patients

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SUN-LB88

THYROTOXIC PERIODIC PARALYSIS IN HISPANIC PATIENTS BACKGROUND: Thyrotoxic periodic paralysis (TPP) presents as acute intermittent attacks of weakness related to hypokalemia, commonly reported in Asians and rare in Hispanics(1). Patients with TPP will have triiodothyronine (T3) triggered increased Na+/K+ ATPase pump activity and transcription of the KCNJ18 gene that encodes for the Kir2.6 channel(2). This permits insulin, catecholamines, stress and alcohol(3) to increase cellular intake of potassium, which causes depolarization and leads to weakness and paralysis. We report a case of TPP in a young Hispanic man who presented with lower extremity weakness and falls. **CASE PRESENTATION:** A 34-year-old Hispanic man with Graves' disease, nonadherent to medications presented with generalized weakness, more pronounced in legs, and recurrent falls. Physical examination was unremarkable except for mild enlargement of thyroid gland and abnormal gait due to weakness. Laboratory data showed hypokalemia of 1.8 mmol/L (3.7-5.1 mmol/L) and a TSH level of <0.004 mIU/L (0.34-5.6 mIU/L). Free T4 3.74 ng/dL (0.6-1.6 ng/dL), free T3 597 pg/dL (230-420 Pg/dL), thyroid stimulating Ig 148 (<130). Electrocardiogram did not show U waves. Radio iodine 123 scan of thyroid revealed diffusely increased 24-hour radioactive uptake of 66.5% (10-30%). The patient was diagnosed with TPP and supplemented with three doses of potassium 40 mEq IV infusion. Methimazole and metoprolol were started. He made a good clinical recovery within days. After discharge, he was treated with I-131 (13 mci) and developed postablative hypothyroidism on long term. He was euthyroid on levothyroxine. He did not have any recurrence of weakness at 7-year follow-up. **CONCLUSION:** TPP is uncommonly seen in Hispanics patients as opposed to Asians(3). Physicians should consider TPP as part of the differential diagnosis in young hyperthyroid Hispanic men presenting with weakness or paralysis, as early recognition and treatment can reduce recovery time and potentially prevent tachyarrhythmia or death. **REFERENCES:** 1. Matta A, Koppala J, Gossman W. Thyrotoxic hypokalaemic periodic paralysis: a rare presentation of Graves' disease in a Hispanic patient. BMJ Case Rep. 2014;2014. 2. Ryan DP, Ptacek LJ. Mutations in Potassium Channel Kir2.6 Cause Susceptibility to Thyrotoxic Hypokalemic Periodic Paralysis. Cell, 140(1), pp.88-98. 3. Amblee, A. and Gulati, S. (2016). Thyrotoxic Periodic Paralysis: Eight Cases in Males of Hispanic Origin from a Single Hospital. *AACE Clinical Case Reports*, 2(1), pp.e58-e64.

Steroid Hormones and Receptors

STEROID AND NUCLEAR RECEPTORS

Endocannabinoids Induce Endoplasmic Reticulum Stress in Hepatocytes and Human Coronary Artery Endothelial Cells

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SUN-LB137

Obesity and diabetes are important risk factors for the development of coronary heart disease and stroke. Plasma endocannabinoid (EC) levels are inappropriately elevated in obesity and diabetes, and are hypothesized to play a causal role in central regulation of weight gain. Importantly, it was recently demonstrated that cannabinoid receptor 1 (CNR1) triggers cell stress and induces apoptosis in kidney tubule cells exposed to palmitic acid and high-glucose (HG). HepG2 and human coronary artery endothelial cells (HCAEC) were treated with tunicamycin (TM), thapsigargin (TG), high-glucose (HG), anandamide (AN), and 2-arachondonyl glycerol (2-AG), and endoplasmic reticulum (ER) stress was measured. In cells treated with TM, AM, and 2-AG and the UPR inhibitors 4-phenylbutyrate (4-PB) and taurodeoxycholic acid (TUDCA), both 4-PB and TUDCA prevented AN and 2-AG from promoting ER stress. ER stress in cells treated with AN and 2-AG, but not TM, was inhibited by the CNR1 antagonist rimonabant. Similar results were obtained with HCAEC. Furthermore, treatment with AN and 2-AG induced inositol requiring enzyme 1α and protein kinase R-like endoplasmic reticulum kinase phosphorylation but had no effect on their expression, while activating transcription factor 6 and binding immunoglobulin protein expression were also induced by AN and 2-AG in both HepG2 and HCAEC. Finally, AN and 2-AG treatment induced CNR1 expression in both cell lines. These results strongly suggest that EC's promote ER stress and potentially induce liver and endothelial cell dysfunction.

Bone and Mineral Metabolism

BONE AND MINERAL CASE REPORTS II

Multicentric Carpotarsal Osteolysis Syndrome (MCTO) Has a Generalized High Turnover Bone Phenotype, High S RANKL and Responds to Denosumab

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MON-LB72

Background:MCTO is a rare disorder, caused by mutations in the MABF gene, a negative regulator of RANKL. Manifestations include carpal tarsal osteolysis and subsequent renal failure in some. Pathophysiology is poorly understood, and no effective treatment is available. **Clinical case:**A 5y old boy presented (2011) with R wrist pain and diffuse swelling. MRI showed pan-carpal synovitis with joint effusion. He did not respond to different anti-inflammatory medications. Plain films showed central