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Thyroid

THYROID DISORDERS CASE REPORTS IV

De-Novo Graves Ophthalmopathy After Total Thyroidectomy With Exacerbation Following Rifampicin Therapy for Latent Tuberculosis: A Call for Attention to Disease Modifying Interventions

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SUN-LB87

Introduction: Factors influencing development and course of ophthalmopathy, the most common extrathyroidal manifestation of Graves’ disease, remain poorly defined.

Clinical Case: A 46 year old healthy, non-smoking, medical secretary, presented with Graves’ disease. Laboratory investigation showed thyrototoxicity with high thyroid stimulation immunoglobulin (TSI) levels (1608 %, normal <140%). At presentation there was no evidence of thyroid eye disease on clinical exam and orbital MRI. Treatment with Methimazol and PTU induced severe pruritus and the patient refused further medication. One month after surgery she presented with retroorbital pain, eyelid edema and chemosis, as well as bilateral limitation in abduction; a clinical activity score (CAS) of 3/7. She received IV pulse methylprednisolone 4.5 gr with minor improvement. MRI showed bilateral thickening of all rectus muscles with orbital fat infiltration. TSI increased concomitantly to 3600%. Three months later, she underwent standard retrobulbar radiotherapy (20 Gy), again with only minor improvement. She continued treatment with oral prednisone 20mg with small fluctuations in disease activity in the following months during which TSI remained high (3145%) and latent tuberculosis was detected (elevated interferon-gamma release assay). Therefore, rifampicin 600mg/d was started. A month later the ophthalmopathy worsened (a CAS score of 5/7 without optic neuropathy). Laboratory tests showed new perturbation in thyroid function tests (TSH increased from 5 to 15 mIU/l, normal: 0.5-5; FT4 decreased from 16 to 11 pmol/l, normal: 10-20) and TSI increased to 3879%. Euthyrox dose was increased by 50% from 800 to 1200 microgram/week. It was postulated that prednisone was also being rapidly metabolized by rifampicin mediated induction of the CYP450, and therefore the dose was increased from 20 to 40 mg/d. Six weeks later, normalization of thyroid function tests was followed by improvement in the ophthalmopathy (CAS-3).

Conclusion: De-novo severe Graves’ ophthalmopathy after thyroidectomy requiring multiple forms of treatment is rare but close surveillance is advisable, perhaps particularly in the presence of high TSI. A plausible mechanism may be transient increase in antigenic exposure/dissemination during surgery.

A) Rifampicin, through induction of cytochrome P450-mediated metabolism of levothyroxine, steroids and mycophenolate (the latter not used in our patient) can lead to disease flare-up. Tight clinical and laboratory monitoring of thyroid function tests with individualized dose escalation might be needed. In the future, pharmacogenomics may serve to personalize treatment protocols.

Steroid Hormones and Receptors

STEROID BIOLOGY AND ACTION

Aging Related Changes in Sex Hormone-Binding Globulin in Men With HIV

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SAT-LB134

Background: Sex hormone-binding globulin (SHBG) is a glycoprotein that regulates the bioavailability of sex hormones, may directly affect glucose metabolism, and increases with age in the general population. SHBG concentrations are higher in people with HIV, a population in whom accelerated aging has been hypothesized. It is unclear whether age-related trajectories of SHBG differ by HIV serostatus with other covariates: age, race, BMI, smoking, education, hepatitis C virus infection, total testosterone concentrations, time period. Outcome measure: SHBG, log-transformed) and its rate of change differed by HIV serostatus after adjustment for covariates: age, race, BMI, smoking, education, hepatitis C virus infection, total testosterone concentrations, time period. Close surveillance is advisable, perhaps particularly in the future, pharmacogenomics may serve to personalize treatment protocols.
and greater cumulative years on non-nucleoside reverse transcriptase inhibitors drugs (1.02 (95%CI:1.00,1.04), p=0.05). **Conclusion:** Aging-related increases in SHBG were greater in magnitude among men with HIV and were related to poorer immunologic status and antiretroviral factors. The mechanisms and consequences of these findings require further investigation.

**Thyroid**

**THYROID NEOPLASIA AND CANCER**

**Ultrasound-Guided Radiofrequency Ablation RFA of Benign Symptomatic Thyroid Nodules - Initial Colombian Experience**

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**MON-LB81**

Ultrasound-guided radiofrequency ablation (RFA) of benign symptomatic thyroid nodules, initial Colombian experience

Introduction: Radiofrequency ablation (RF) is a minimally invasive technique probed as effective and safe treatment alternative for the manage. We describe the results of efficacy and safety up to 12 months following the first thyroid nodules with ablative radiofrequency in Colombia. Objective: Evaluate the efficacy and safety of RF thyroid radiofrequency ablation for benign thyroid nodules in a protocol in our center in Bogotá Colombia, case series. Methodology: Prospective, observational and descriptive Trial Patients and procedure: From May/2017 to Nov/2019 we Treated 38 patients with 59 mainly solid nodules were treated with a Radiofrequency Ablation system with cooling 2 standard techniques (Trans-isthmic approach and moving Shut technique). Starmed system with cooling 2 standard techniques (Trans-isthmic approach and moving Shut technique). Cosmed system with cooling 2 standard techniques (Trans-isthmic approach and moving Shut technique).

**Conclusion:** Radiofrequency ablation performed in our institution is effective and safe for the treatment of thyroid nodules. With patient satisfaction, improve the compressive, cosmetic symptoms and quality of life and without severe complications. It is necessary to continue to enrich this experience, because reducing volume and solving compressive and cosmetic problems, is ambulatory procedure.

**Tumor Biology**

**ENDOCRINE NEOPLASIA CASE REPORTS III**

**Severe Refractory Volume Overload With Diazoxide in the Treatment of Insulinoma**

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**SAT-LB303**

Background: Insulinoma is the most common neuroendocrine tumor (NET), occurring in 1-4 people per million. Surgical resection remains standard of care for symptomatic control and long-term remission. Where surgery is not feasible medical therapy with diazoxide and somatostatin analogues is used as supportive management. **Case:** A 88-year-old male with background hypertension, remote myocardial infarct and chronic kidney disease (CKD) (Cr 130-150 umol/L; N 60-115) was diagnosed with insulinoma following a presentation for confusion and CBG of 0.9 mmol/L. Diagnosis was confirmed by 72 hour fast with inappropriate insulin (85 pmol/L; N<95) and elevated c-peptide (1875 pmol/L; N 325-1090) with documented hypoglycemia (2.8 mmol/L). CT abdomen localized a 1.2 cm exophytic lesion in the pancreatic tail suggestive of insulinoma. Normal morning cortisol (547 nmol/L) excluded adrenal insufficiency. Initial management included resuscitation with dextrose infusions. Due to advanced age and high cardiac risk profile, the patient was not a candidate for surgical resection of the NET. Endoscopic ultrasound (EUS) ablation was deferred at time of initial hospitalization due to stabilization of hypoglycemia with high glycemic diet. An episode of nocturnal hypoglycemia prompted initiation of diazoxide 100 mg as an outpatient. Subsequent dyspnea (NYHA IV) developed and acute on chronic kidney injury (peak Cr 416 umol/L) with evidence of anasarca secondary to diazoxide use prompted readmission to hospital. With conversion to octreotide, discontinuation of diazoxide and treatment with multiple diuretics, volume overload did not improve. The patient was deemed not a candidate for intermittent hemodialysis and the decision was made to change goals of care. The patient died of complications of volume overload from cardiorenal syndrome 21 days after the initiation of diazoxide. **Conclusion:** Volume overload has been documented as a complication of diazoxide use in both hypoglycemia and hypertension, occurring in up to 50% of cases, however mortality is not common with supportive management. **Risk factors** for refractory volume overload appear to include reduced ejection fraction, extremes of age and history of CKD. Possible mechanisms for acute decompensation in CKD include increased unbound diazoxide levels, prerenal effect from hypotension and sodium retention. This case highlights the need for close monitoring with