Endocrine Abstracts

September 2020 Volume 70
ISSN 1479-6848 (online)

22nd European Congress of Endocrinology

5-9 September 2020, European Society of Endocrinology

eECE 2020
22nd European Congress of Endocrinology

published by
bioscientifica

Online version available at
www.endocrine-abstracts.org

Endocrine Abstracts

Volume 70
September 2020

22nd European Congress of Endocrinology

5-9 September 2020, European Society of Endocrinology

The European Society of Endocrinology would like to thank its Corporate Members and the sponsors of e-ECE 2020.

Premium Corporate Members
Akcea Therapeutics
Ipsen
Pfizer
Recordati Rare Diseases Sarl
Takeda

Corporate Members
Advanced Accelerator Applications
Amryt Pharmaceuticals (formerly Aegerion)
Diurnal
HRA Pharma
Kyowa Kirin International
Merck Serono
Novo Nordisk
Sandoz International GmbH
Siemens-Healthineers
Strongbridge Biopharma
Uni-Pharma

Supporters
Chiasma
Crinetics Pharmaceuticals
Isotopen Technologien Munchen AG

Gold Sponsors
Ipsen
Pfizer
Takeda

Silver Sponsor
Recordati Rare Diseases

Bronze Sponsors
Advanced Accelerator Applications
Amryt Pharma
HRA Pharma Rare Diseases
Kyowa Kirin
Novo Nordisk

European Society of Endocrinology
Starling House, 1600 Parkway
North, Bristol, BS34 8YU, UK

Tel: +44 (0) 1454 642247
Fax: +44 (0) 1454 642222
E-mail: info@euro-endo.org
Website: http://www.endocrinology.org

Congress Secretariat:
Bioscientifica Ltd
Starling House, 1600 Parkway
North, Bristol, BS34 8YU, UK

Tel: +44 (0)1454 642240
Fax: +44 (0)1454 642222
E-mail: ece2020@endocrinology.org
Website: www.ece2020.org

CONTENTS

e-ECE 2020
22nd European Congress of Endocrinology

PRIZE LECTURES AND BIOGRAPHICAL NOTES

PLENARY LECTURES

SYMPOSIA

COVID-19 SESSION

ORAL COMMUNICATIONS

AUDIO EPOSTER PRESENTATIONS

EPOSTER PRESENTATIONS

AUTHOR INDEX

EP516

Treatment of hypothyroidism does not affect whole-body oxidative stress, as measured by biomarkers of RNA and DNA damage

Kamilla Ryom Riis[1], Camilla Larsen[1], Kristian H. Winther[1], Emil L. Larsen[2], Christina Ellervik[3], Laszlo Hegedüs[1], Thomas Brix[1], Henrik E. Poulsen[2] & Steen J. Bonnema[1]
[1]Odense University Hospital, Endocrinology, Odense, Denmark; [2]Rigshospitalet, Department of Clinical Pharmacology; [3]Copenhagen University, København, Denmark

Background
Hyperthyroidism as well as hypothyroidism have been associated with oxidative stress, caused by an imbalance between pro-oxidants and anti-oxidants. Oxidative stress may damage the genomic apparatus and other cellular structures. Urinary excretion of 8-oxo-7.8-dihydroguanosine (8-oxoGuo) and 8-oxo-7.8-dihydro-2'-deoxyguanosine (8-oxodG), respectively, represent global RNA and DNA oxidation, thus reflecting oxidatively generated modification of nucleic acids in the entire organism. While these biomarkers have been associated with increased morbidity and mortality in various diseases, they have only sparsely been explored in patients with thyroid disorders.
Method
Twenty-eight hypothyroid women (overt: $n=6$; subclinical: $n=22$) were included in a prospective cohort study. Mean age was 48.4±10.8(s.d.) years at diagnosis. Urinary excretion of 8-oxoGuo and 8-oxodG, corrected for creatinine, were measured shortly after initiation of levothyroxine (LT4) supplementation [mean 38±26 days between start of treatment and first study visit], and after a minimum 12 months of stable euthyroidism.
Results
Before treatment, TSH was 9.40±4.97 mIU/l and total T4 was 75.0±18.4 nmol/l. Mean follow-up time was 604±251 days. When euthyroid, the mean LT4 dose was 112±36 µg, and TSH had decreased to 2.48±2.08 mIU/l. As 8-oxoGuo and 8-oxodG were not normally distributed, a logarithmic transformation was applied. Compared to baseline, none of the biomarkers changed significantly after 12 months of euthyroidism. 8-oxoGuo: geometric mean (GM) 1.82 (95% CI: 1.62–2.03) nmol/mmol creatinine at baseline and GM 1.88 nmol/mmol creatinine (95% CI: 1.67–2.11) at euthyroidism, $P=0.51$. 8-oxodG: GM 1.37 nmol/mmol creatinine (95% CI: 1.15–1.64) at baseline and GM 1.45 nmol/mmol creatinine (95% CI: 1.23–1.70) at euthyroidism, $P=0.44$.
Conclusions
To the best of our knowledge this is the first study to evaluate the impact of LT4 treatment in hypothyroid patients on the excretion of the nucleic acid metabolites 8-oxoGuo and 8-oxodG. We found no significant effect of restoration of euthyroidism on these biomarkers of whole-body oxidative stress. However, the negative finding may be explained by most of our patients having subclinical rather than overt hypothyroidism. Thus, larger studies of patients with more severe thyroid failure are needed to further explore the relationship between hypothyroidism, its treatment, and whole-body oxidative stress.

DOI: 10.1530/endoabs.70.EP516

EP517

Frequency of circulating antithyroid antibodies among the patients with thyroid diseases

Dinara Urinbaeva[1], Zulaykho Shamansurova[1,2] & Said Ismailov[1]
[1]Tashkent Pediatric Medical Institute, Endocrinology, Tashkent, Uzbekistan; [2]Institute of Biophysics and Biochemistry at NUU, Metabolomics, Tashkent, Uzbekistan

Background
Increasing of the level of circulating Antithyroid autoantibodies suggested about autoimmune destruction in thyroid gland and not always depends from thyroid status. We aimed to study the frequency of circulating antithyroid autoantibodies (ATAB) in people with the different thyroid diseases.
Material and methods
In 25 people with high level of circulating ATAB blood serum TSH, T3, T4, glucose, ALAT, protein, albumin levels were measured. Thyroid gland ultrasound and ECG were performed. HR and BP were assessed.
Results
According to thyroid function in 64% were determined euthyreosis (TSH 1.6 ng/ml), in 24% with hyperthyroidism (TSH 0.1 ng/ml) and 12% with hypothyroidism (TSH 15.4 ng/ml). The average levels of ATAB were comparable between the groups and were four times higher than in healthy subjects. There were no significant differences in blood Calcium, Phosphorus level and alkaline phosphatase activity, whereas blood total protein, albumin, ALAT levels were oppositely linked with thyroid function. Interestingly, higher level of ATAB were accompanied with impaired glycemia in 56% patients with ecthyreosis, in 17% with hyperthyrosis and no glycemia impairments were detected in patients with hypothyreosis.
Conclusion
In patients with higher circulating ATAB mostly detected euthyreosis (in 64%) than hyperthyreosis (in 24%) and hypothyreosis (in 12%). In people with higher ATAB the glycemia impairments were determined in those with euthyreosis (56%) and hyperthyreosis (17%).

DOI: 10.1530/endoabs.70.EP517

EP518

Management of subclinical hyperthyroidism presented by several cases

Valentina Velkoska Nakova[1], Brankica Krstevska[2], Gordana Pemovska[3], Irfan Ahmeti[3], Tatjana Milenkovic[3,4]
[1]Clinical Hospital, Faculty of Medical Science, University Goce Delchev, Internal medicine, Shtip, Macedonia; [2]Medical Faculty, University Cyril and Methodius, PHO Center of Internal Medicine 'Srce', Skopje, Macedonia; [3]Medical Faculty, University Cyril and Methodius, University Clinic of Endocrinology Diabetes and Metabolic Disorders, Skopje, Macedonia; [4]Medical Faculty, University St Cryl and Methodius, University Clinic of Endocrinology, Diabetes and Metabolic Disirders, Skopje, Macedonia

Subclinical hyperthyroidism (ScHyper) is a condition with suppressed TSH, and normal free T3 and free T4 hormones, affecting 10% of the population. There are two subgroups of patients, the first group with TSH lower than 0.1 U/l, and the second group with mildly suppressed TSH between 0.1 and the lower assay reference limit. The patients from the first group should be treated, but there is no evidence for therapy for the second group of patients. We present a three cases from the second group of patients with ScHyper and their different management of the disease. The pregnant women in the first trimester of pregnancy wasn't treated, just observed. The TSH spontaneously normalized in the second trimester of pregnancy. Patient with ScHyper caused by Graves' disease was treated only with beta blocker because of tachycardia. And, older women with multinodular goiter, who refused iodine 131 therapy, was treated with low doses of antithyroid drug and beta blocker. All three were without any complications from the disease. Treatment options of ScHyper are: antithyroid drugs, iodine 131 therapy, and surgery. Which of these will be chosen, or patient will be observed without therapy, depends to the specific causes.
Keywords: subclinical hyperthyroidism, Graves' disease, TSH reference values.

DOI: 10.1530/endoabs.70.EP518

EP519

The Role of Selenium and Iodine on thyroid status in the first trimester of pregnancy

Sabine Upmale[1], Vija Veisa[1], Ieva Kalere[2], Andrejs Šķesters[1], Marina Makrecka- Kūka[1], Ieva Strēle[1], Maija Dambrova[1,3] & Ilze Konrāde[1]
[1]Riga Stradins University, Riga, Latvia; [2]Riga Stradins University, RIga, Latvia; [3]Latvian Institute of Organic Synthesis, Riga, Latvia

Introduction
Pregnant women are at risk for selenium deficiency, which is known to maintain adequate function of immune system and thyroprotective enzymes. Same, iodine is an essential micronutrient for thyroid hormone synthesis and important endocrine regulator of early brain development. Our previous study revealed that 81% of pregnant women in Latvia have insufficient levels of iodine. The aim of the present study was to evaluate iodine and selenium supply during pregnancy in recent years, and to analyze its association with thyroid function and autoimmunity.
Methods
123 pregnant women during the first trimester were included in a cross-sectional study in 2017–2019. Urinary iodine concentration(UIC) was