

# Scientific Tracks & Abstracts



11<sup>th</sup> International Conference on

# Endocrinology and Diabetology

August 09-10, 2018 | Madrid, Spain

Page 19



#### Sessions

Male & Female Reproductive Health and Biology | Diabetes Mellitus and Glucose Metabolism | Endocrinology Research and Development | Bone and Mineral Metabolism

Session Chair Alaa Abdelkarim ACE Cells Lab Limited, UK **Session Co-Chair Yasuo Imanishi** Osaka City University, Japan

#### **Session Introduction**

Title: Arterial hypertension in patients taking anabolic steroids with progestin activity Pavel Popov, RUDN University, Russia

Title: Exercise as treatment for depression in pregnant women with gestational diabetes mellitus

Eleftheria Taousani, Alexander Technological Educational Institute of Thessaloniki, Greece

Title: Hyperglycaemia increases p300 acetyl-transferase activity in colon cancer cells Custodia García-Jiménez, Universidad Rey Juan Carlos, Spain

Title: Evaluation of Flow Mediated Vasodilatation of the Brachial Artery as a Marker of Endothelial Dysfunction in Hypothyroidism

**Elham Mohammed Yousief,** Cairo University, Egypt

Title: Primary hypothyroidism with ovarian cyst and pituitary mass

Olivia Al-Hassan, Jafar Ibn Auf Tertiary Paediatric Hospital, Sudan



11th International Conference on

# **Endocrinology and Diabetology**

Pavel Popov et al., J Clin Mol Endocrinol 2018, Volume 3 DOI: 10.21767/2572-5432-C2-005

## ARTERIAL HYPERTENSION IN PATIENTS TAKING ANABOLIC STEROIDS WITH PROGESTIN ACTIVITY

#### Pavel Popov and Irina Kurnikova

RUDN University, Russia

Background: The problems of development of cardiovascular disorders alongside with implementation of androgen replacement therapy with testosterone medications have been discussed in the scientific literature for a long time. Some authors noted in their patients a high packed cell volume characteristic of hormone replacement therapy, as well as dyslipidemia and progressive arterial hypertension, which develop with the use of androgenic anabolic steroids. Of course the risk of developing side effects such as hypertension after use of various forms of prolonged testosterone (testosterone enanthate etc.) compared with that of use of anabolic steroids is not the same. In our study the main attention is paid to such problem as arterial hypertension, which appears against the background of the use of anabolic preparations with progestin activity, characterized by absence of a carbon atom in the 19th position when compared with testosterone.

**Objectives:** The objective of this work is to study the special characteristics of the course of hypertension (the rate of progression) in patients who used drugs with anabolic activity that contact with receptors of progesterone compared with other forms of testosterone medications.

Materials & Methods: The study involved 44 patients (men) aged 21 to 40 years, including 23 people who, according to medical history, used drugs with anabolic and progestin activity for 1 month or more (observation group) and 21 people who used anabolic steroids without progestin activity (comparison group). Inclusion criterion - the level of luteinizing hormone (LH) <1.24 mIU/ml. Dosages of drugs in both groups are comparable in terms of their anabolic activity. Clinical examination included analysis of complaints (headaches, sleep disorders, edema (shins, eyelids, fingers), cardialgia etc., morphophysiological indices, measurement of blood pressure, ambulatory blood pressure monitiring, measurement of heart rate. Blood sampling for biochemical and hormonal research was conducted in the time interval from 8.00 to 11.00 am on empty stomach. The biochemical study included: full blood count (FBC), lipid profile, hepatic enzymes, creatinine,

glycohemoglobin. The hormonal examination provided for the determination of total testosterone, estradiol, luteinizing hormone, follicle-stimulating hormone, prolactin.

Results: As a result of the study, it was found that 51% of patients took progestin-active drugs, 49% - without progestin activity. Arterial hypertension was observed in 27 (61%) patients, with the first degree of arterial hypertension observed in 20% of patients, the second degree in 27%, and the third degree in 14%. Also, edema was observed in 18 (61%) patients and sleep disorders was observed in 18 (61%) patients. A positive relation was found between taking drugs with progestin activity and a high (2-3) degree of arterial hypertension (Chi-square 29.5, p-value<0.000002).

**Discussion:** The use of any drug leading to an increase in blood pressure should be accompanied by a study of its effect on the current cardiovascular pathology and the frequency of its development. All these medicines should be considered as additional factors of cardiovascular risk. As a result of our study a positive correlation was obtained between the medications with progestin anabolic effect and development of arterial hypertension in the examined patients (Chi-square: 29.5, p<0.001).

Conclusions: The use of anabolic drugs with progestin activity is associated with a risk of hypertension which, in combination with high packed cell volume and dyslipidemia, increases the risk of cardiovascular disease in this group of patients.

#### Biography

Dr. Pavel Popov graduated from Faculty of Medicine, Peoples' Friendship University of Russia.Dr. Popov based in Moscow and practiced as an Endocrinologist with the City Clinical Hospital named after A.K. Eramishantsev.He has authored and co-authored publications in key medical journals and International conferences in the fields of diabetes, hormones, andrology, obesity and cardiovascular risk assessment.

Pavelp.2014@mail.ru



# **Endocrinology and Diabetology**

August 09-10, 2018 Madrid, Spain

Eleftheria Taousani et al., J Clin Mol Endocrinol 2018, Volume 3 DOI: 10.21767/2572-5432-C2-005

## EXERCISE AS TREATMENT FOR DEPRESSION IN PREGNANT WOMEN WITH GESTATIONAL DIABETES MELLITUS

### Eleftheria Taousani<sup>1,2</sup>, Tsirou Efrosini<sup>2</sup>, Martha Moraitou<sup>1</sup>, Basil C Tarlatzis<sup>2</sup>, Dimitrios Vavilis<sup>2</sup> and Dimitrios G Goulis<sup>2</sup>

<sup>1</sup>Alexander Technological Educational Institute of Thessaloniki, Greece

<sup>2</sup>Aristotle University of Thessaloniki, Greece

**Background:** Prevalence of depression is higher in women with gestational diabetes mellitus (GDM) than in uncomplicated pregnancies. Exercise is part of the management of both depression and GDM.

**Aim:** The aim of this randomized control trial is to measure the prevalence of antenatal depression in women diagnosed with GDM, who exercised systematically.

Methods: Thirty-four pregnant women with GDM, attending a Clinic of Endocrine and Metabolic Disorders, participated. Twenty-one women were randomly engaged in an 6-8 week program of aerobic exercise, 3-4 times per week and thirteen women were randomly assigned not to participate in an exercise program. Beck Depression Inventory (BDI) was used to measure depression. The questionnaires were completed twice, at 26-30 weeks of gestation and 37-38 weeks.

**Findings:** There was no significant difference in the BDI at week 26-30, between "Exercise" and "Advice" groups (9.9±4.8 vs. 9.3±4.7 p=0.738); on the contrary, there was significant difference at week 37-38 (8.7±3.9 vs. 11.9±3.6, respectively, p=0.015). In addition, there was significant

decrease in the "Exercise" group between the two appliances of the questionnaire (9.9 $\pm$ 4.8 vs. 8.7 $\pm$ 3.9, p=0.008), as well as significant increase in the "Advice" group (9.3 $\pm$ 4.7 vs. 11.9 $\pm$ 3.6, p=0.025).

**Conclusions:** Participating in an aerobic exercise program has a protective role in the prevention of depression in women with GDM. Health care professionals should encourage women with GDM to include exercise as a part of their treatment plan.

#### **Biography**

Eleftheria Taousani graduated from Midwifery Department at the Alexander Technological Educational Institute of Thessaloniki (ATEITH) in 1991. She obtained her second Degree in Nursing from the University of Missouri-Columbia (USA) in 1996. She completed her master thesis in the Department of Physical Education and Sport Science in Human Performance and Health. She is currently a Doctoral candidate- Unit of Reproductive Endocrinology, First Department of Obstetrics and Gynecology at ATEITH. She is also a Lecturer in the Midwifery Department at the same institute. Her scientific interests are psychoprophylaxis, prenatal and postnatal psychology and exercise during pregnancy and postpartum and gestational diabetes mellitus.

tausani@midw.teithe.gr liataou@yahoo.gr

<sup>&</sup>lt;sup>3</sup>Democritus University of Thrace, Greece



# **Endocrinology and Diabetology**

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Custodia García Jiménez et al., J Clin Mol Endocrinol 2018, Volume 3 DOI: 10.21767/2572-5432-C2-005

## HYPERGLYCAEMIA INCREASES P300 ACETYL-TRANSFERASE ACTIVITY IN COLON CANCER CELLS

Custodia García Jiménez<sup>1</sup>, Ana Chocarro Calvo<sup>1</sup>, Jose Manuel García Martínez<sup>1</sup>, María Gutiérrez Salmerón<sup>1</sup>, Maria Carmen Fiuza<sup>2</sup> and Antonio De la Vieja<sup>3</sup>

<sup>1</sup>King Juan Carlos University, Alcorcon, Spain

<sup>2</sup>Alcorcon Foundation University Hospital, Spain

CBP is widely involved in human disease from cancer to neurodegeneration. How physiological or pathological conditions or metabolites alter the acetylation balance to drive broad changes in cancer cell gene expression, imposing epigenetic marks has been elusive. Here we show the molecular mechanisms that underlie induction of p300 activity under hyperglycaemia, which results in general chromatin opening to allow high rates of proliferation in gastrointestinal cancer cells. We show the mechanistic details *in vitro* to discuss new molecular targets and then we compare human samples from diabetic and non diabetic patients.

#### **Biography**

Custodia García Jiménez graduated in Biology from University of Murcia and from Autonomous University of Barcelona (Madrid) as Doctor in Biology. She studied (Predoctoral) at Harvard Medical School- Massachusetts General Hospital, Boston (USA) and (Postdoc) at European Molecular Biology Laboratory, Heidelberg, (Germany) and Murdoch Children's Research Institute, UK with national (Spanish Ministry of Science & Education ) and international fellowships (Marie-Curie Fellowships-EC). In 2002, she joined King Juan Carlos University (URJC) where she teaches Physiology and leads her research focused on molecular links between diabetes and cancer. She has collaborations with several international (UK and Japan) and national institutions and hospitals attached to URJC.

custodia.garcia@urjc.es

<sup>&</sup>lt;sup>3</sup>Carlos III Health Institute, Spain



# **Endocrinology and Diabetology**

August 09-10, 2018 Madrid, Spain

Elham Mohammed Yousief et al., J Clin Mol Endocrinol 2018, Volume 3 DOI: 10.21767/2572-5432-C2-005

# EVALUATION OF FLOW MEDIATED VASODILATATION OF THE BRACHIAL ARTERY AS A MARKER OF ENDOTHELIAL DYSFUNCTION IN HYPOTHYROIDISM

#### Elham Mohammed Yousief, Olfat Gamil Shaker, Naglaa Mohamed, Amr El Meligi and Ahmed Sobhy

Cairo University, Egypt

Introduction: This study was conducted in Endocrine and Diabetes Clinic (Cairo University) from 2016-2017 to evaluate endothelial function using flow mediated vasodilatation (FMD) of brachial arteries in subclinical hypothyroidism (SHT) to provide a possible evidence for treating all patients with SHT.

Patients & Methods: The study included 48 women with primary hypothyroidism and 9 women as a control group. Hypothyroid patients were divided to: Group I (overt hypothyroidism: OHT) (n=24): elevated serum TSH, low FT3 & FT4 and were subdivided into: Group IA: (n=6) on L-thyroxine with controlled hypothyroidism: TSH in the laboratory reference range (0.4-4.1  $\mu$ IU/ml). Group IB: (n=18), 7 were naïve for L-thyroxine and 11 on L-thyroxine with uncontrolled hypothyroidism (TSH>4.1  $\mu$ IU/ml). Group II (SHT) (n=24): elevated serum TSH, normal FT3 & FT4, n=24) were not receiving L thyroxine subdivided into: Group IIA: (n=10): TSH (4.1-10  $\mu$ IU/ml). Group IIB: (n=14) TSH (>10  $\mu$ IU/ml).

**Results:** FMD was significantly lower in the different hypothyroid subgroups than control group and was comparable among the

4 hypothyroid subgroups with no correlation with serum TSH (Right:  $16.19\pm12\%$ ,  $9.12\pm13.23\%$ ,  $14.5\pm24.7\%$ ,  $11.3\pm8.5\%$ ,  $21.87\pm2.78\%$  in groups IA, IB, IIA, IIB, control respectively (P<0.019). Left:  $12.04\%\pm9.49\%$ ,  $12.64\pm14.53\%$ ,  $11.85\pm14\%$ ,  $9.56\pm6.75\%$ ,  $21.83\pm5.18\%$  in groups IA, IB, IIA, IIB, control respectively (P<0.002)).

**Conclusions:** Endothelial dysfunction is present in OHT and SHT regardless the level of TSH. The role of L-thyroxine in improving endothelial function is not consistent.

#### **Biography**

Dr Elham Mohamed yousief, lecturer of internal medicine, diabetes and endocrinology at faculty of medicine, cairo university. I have master and PHD degree for internal medicine, also master degree for diabetes, endocrinology, clinical nutrition and metabolism. Five published research. No previous award and presentation at any conference.

drelhamyousief@gmail.com



11th International Conference on

## **Endocrinology and Diabetology**

Olivia Al-Hassan et al., J Clin Mol Endocrinol 2018, Volume 3 DOI: 10.21767/2572-5432-C2-005

#### PRIMARY HYPOTHYROIDISM WITH OVARIAN CYST AND PITUITARY MASS

#### Olivia Al-Hassan<sup>1</sup> and Mohamed Abdullah<sup>2</sup>

<sup>1</sup>Jafar Ibn Auf Tertiary Paediatric Hospital, Khartoum, Sudan <sup>2</sup>University of Khartoum, Sudan

Primary hypothyroidism is frequently seen in children, with a prevalence of 2.5%, with autoimmune thyroiditis being the most common cause of acquired hypothyroidism. It is commonly manifested as a slowing in physical and mental activity, dull mood, but in general its manifestations are neither sensitive nor specific, and difficult to attribute to a particular cause. Primary hypothyroidism also can present with precocious puberty and/ or ovarian cyst, pituitary masses are another presentation of untreated primary hypothyroidism, which can wrongly be diagnosed as pituitary tumors. Here, we report a case that has both features, aiming to highlight the physiologic mechanisms proposed to explain this phenomenon, and to draw attention toward importance of early recognition, and proper management of this disease because it shows that non-recognition and suboptimal management can lead not only to a delay in diagnosis but also to thinking about unnecessary surgical procedures. We report a case of a 13 year old girl seeking medical advice due to progressive abdominal mass which was enlarged gradually

over the last two years, with concern of tumor. She was found to have features of hypothyroidism, diagnosis of Hashimoto's thyroiditis was made and thyroxin was started in a dose of 2 mg/kg. Without marked improvement in her condition, she presented to our unit asking for second opinion with fear of tumor. After history been revised, careful examination and performing related investigations, we labled her as a case of primary hypothyroidism, complicated by ovarian hyperstimulation syndrome (sOHSS) and pituitary hyperplasia

#### **Biography**

Olivia Al-Hassan graduated from the Faculty of Medicine of Baher Elgazal University as a Medical Doctor and am MD in Pediatric and Child Health, obtained from Sudan Medical Specialization Board. Later on she obtained her subspeciality in Pediatric Endocrinology from ESPE (European Society of Pediatric Endocrinology) PTCA 2016, and then started working at Jafar Ibn Auf Tertiary Paediatric Hospital till now.

olivoniy@gmail.com







## Endocrinology and Diabetology

August 09-10, 2018 | Madrid, Spain



11th International Conference on

# **Endocrinology and Diabetology**

Graham Ewing, J Clin Mol Endocrinol 2018, Volume 3 DOI: 10.21767/2572-5432-C2-005

#### **BLOOD GLUCOSE IS NEURALLY REGULATED**

#### **Graham Ewing**

Mimex Montague Healthcare, UK

he misdiagnosis of diabetes remains a significant problem for the endocrinologist. The author will speak about 'neuroregulation', in particular the neuroregulation of blood glucose levels i.e. that blood glucose is a neurally regulated physiological system, that diabetes can occur in patients who have a normally functioning pancreas, and that T1DM and T2DM invariably occur as comorbidities. It is inevitable that diabetes must be BOTH type 1 and type 2 diabetes. Type 1 is the genetic condition which is followed by the process by which the expressed insulin reacts with its reactive substrate IRP2. The problem of type 3 diabetes – the multi-systemic chronic condition - is an advanced complication of the condition. Accordingly, an inexpensive test is required which is able to determine the rate of genetic expression of pre-pro-insulin/insulin (type 1), which can determine the rate at which the expressed insulin reacts with its reactive substrate (type 2), and which can determine the complex pathological correlates of the condition (type3). This is an enormous problem for the medical profession. To screen for the range of complex correlates using contemporary biomedical

indices will add immense cost to the diagnostic process however there is one technology - Strannik Virtual Scanning – which is able to do so at much lower cost than any current technology(s).

#### **Biography**

Graham Ewing B.Sc. is author of ca 80 articles which have been published in peer-reviewed medical journals and/or have been presented at medical conferences. He has a current rating of 15.83 on ResearchGate which places him in the upper 40% of researchers. His work is immensely popular. This presentation focuses upon a dominant theme of his work, that cognitive changes reflect pathological onset and can be used as the basis of a mathematical model of how the brain regulates the autonomic nervous system and physiological systems; and how this can be used to screen and treat the health of the patient. The presentation focuses upon diabetes — primarily because changes of colour perception accompany the onset of diabetes and can be used to explain and determine the complex correlates of what has come to be known as diabetes mellitus but which is in reality a far more complex phenomena.

graham.ewing@mmhcl.co.uk



Scientific Tracks & Abstracts



11th International Conference on

## Endocrinology and Diabetology

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#### Sessions

Endocrinology and Diabetes | Clinical Endocrinology | Obesity and Metabolic disorders | Diabetes Mellitus and Glucose Metabolism | Paediatric Endocrinology and Care

Session Chair Alaa Abdelkarim ACE Cells Lab Limited, UK **Session Co-Chair Yasuo Imanishi** Osaka City University, Japan

#### **Session Introduction**

Title: Differential diagnosis between iodine-induced hyperthyroidism and non iodine-induced hyperthyroidism with computed tomography

Ramchandra Sargar, RUDN University, Russia

Title: Cortisol as the cause for several diseases and Folic Acid and Vitamin B12 as possible therapeutic targets

Zefat Academic College, Zefat, Israel

Title: The paradigm shift: New medical alternatives to surgery for endometriosis

Edward Lichten, Wayne State College of Medicine, USA

Title: New approach to treat Diabetes Complications

Alaa Abdelkarim, ACE Cells Lab Limited, UK



# **Endocrinology and Diabetology**

August 09-10, 2018 Madrid, Spain

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# DIFFERENTIAL DIAGNOSIS BETWEEN IODINE-INDUCED HYPERTHYROIDISM AND NON IODINE-INDUCED HYPERTHYROIDISM WITH COMPUTED TOMOGRAPHY

#### Ramchandra Sargar<sup>1</sup>, Kurnikova I A<sup>1</sup> and Tomashevskiy I O<sup>2</sup>

<sup>1</sup>RUDN University, Russia

<sup>2</sup>Central clinical hospital №2 named after N.A. Semashko, Moscow, Russia

Background: In hyperthyroidism, physician must have information that whether this hyperthyroidism is caused due to excess iodine or not, as this fact dramatically affects on the prognosis and management of subsequent therapy. The diagnostic methods which are nowadays widely used like, serum TSH level, fT4, fT3 and USG of thyroid gland, do not answer to the question of what is the pathogenesis of hyperthyroidism in terms of iodine induction. Thyroid scintigraphy or scan with technetium (99mTc) allows assessing only in non-iodine induced hyperthyroidism by diffused uptake. Thyroid scintigraphy, in case of iodine induced hyperthyroidism, will not allow visualizing thyroid gland due to blocked function of iodine trapping (Wolff-Chaikoff effect). This blockade can occur not only due to Wolff-Chaikoff effect, but also some elements like, bromide and corvalol etc. Patients might not remember about these elements, which particularly reduce the value of DD in hyperthyroidism with thyroid scintigraphy. In accentuation, the only method, which allows diagnosing the thyroid function disorder, is the thyroid density imaging with computed tomography, so called Hounsfield unit (HU). This thyroid density is directly proportional to the concentration of intrathyroidal stable iodine. Based on literature data, the following variations of the thyroid density in HU are proposed for all regions of Russia, reflecting the euthyroid state is from 85 to 140 HU. When there is iodine-induced impairment of thyroid function, thyroid density in HU is more than 140. In primary hypothyroidism (thyroid hormones are not synthesized) or in diffuse toxic goiter (lack of fixation of thyroid hormone in colloid due to pathological secretion) thyroid density in HU is less than 85 HU.

Aim: To demonstrate the necessity of application of thyroid density imaging with computed tomography (CT) for differential diagnosis between iodine-induced hyperthyroidism and non iodine-induced hyperthyroidism.

**Materials and methods:** Three women with 59, 58, 64-years-old presented for evaluation of tachycardia, nervousness, moderate

sweating, weight loss, tremors in the extremities. A 59- year-old woman did not have contact with an excess iodine or bromide. A 58-year-old woman, 18 months ago, had finished treatment with amiodarone. A 64-year-old woman, since a week has been using eye drop (Corvalol) by ophthalmologist's prescription. All patients were examined clinically and laboratory with determination of hormones – serum TSH and fr.T4, USG of thyroid gland, thyroid scintigraphy with capture index of <sup>99m</sup>Tc (the ratio of the intensity of radiation (IR) from <sup>99m</sup>Tc from the zone of interest over the thyroid gland to the IR of the zone of interest over the background on the neck), thyroid density imaging with CT in HU.

Results: The patient's (59-year-old) clinical and laboratorical values- serum TSH 0.02mU/l (normal value 0.4-4.2 mU/l); fr.T4 64 pmol/l (normal value 9-19 pmol/l); volume of thyroid gland 19 cm3 (normal value till 18 for women); capture index with 99mTc 40 (normal value 2-7); thyroid density in HU 70 (normal value 85-140 HU). The patient's (58-year-old) clinical and laboratorical values- serum TSH 0.05mU/l (normal value 0.4-4.2 mU/l); fr.T4 21 pmol/l (normal value 9-19 pmol/l); volume of thyroid gland 12 cm3 (normal value till 18 for women); capture index with 99mTc 1.3 (normal value 2-7); thyroid density in HU 150 (normal value 85-140 HU). The patient's (64-year-old) clinical and laboratorical values- serum TSH 0.28mU/l (normal value 0.4-4.2 mU/l); fr.T4 20 pmol/l (normal value 9-19 pmol/l); volume of thyroid gland 19 cm3 (normal value till 18 for women); capture index with 99mTc 1.5(normal value 2-7); thyroid density in HU 80 (normal value 85-140 HU).

Conclusion: Among these three patients, increased capture index of <sup>99m</sup>Tc in thyroid scintigraphy is observed only in one patient (59- year-old), who did not have contact with excess iodine or bromide, but in other two women, capture index is decreased. This decreased capture index indicates that function of iodine trapping has been blocked, due to amiodarone in patient (58-year-old) and carvolol (contains ethylbromoacetate) in patient



11th International Conference on

# **Endocrinology and Diabetology**

(64-year-old). Thus, above mentioned clinical presentation demonstrates that 1- Thyroid scintigraphy with 99mTc gives little information in differential diagnosis between lodine-induced hyperthyroidism and indirectly iodine intake (in form of brome) which might block the function of iodine trapping. This drawback does not allow evaluating adequate function of thyroid gland. 2-Thyroid density in HU with CT is mandatory to use in DD between lodine-induced hyperthyroidism and indirectly iodine intake. Density variations of TG in HU is 85 to 140 HU is permissible for this diagnosis. When there is iodine-induced impairment of thyroid function, thyroid density in HU is more than 140. In primary hypothyroidism (Thyroid hormones are not synthesized) or in diffuse toxic goiter (lack of fixation of thyroid hormone in colloid due to pathological secretion) thyroid density in HU is less than 85 HU. In accentuation, Iodine consumption, lately, in the form of inorganic or organic pharmacological compounds for therapeutic or diagnostic purposes, has increased. The number of such substances containing different amounts of iodine is more than 29. Patients, often taking them, can't always remember their names. Despite the existence of a highly effective mechanism for adaptation of TG, excess iodine can cause hyperthyroidism in

susceptible individuals. As above mentioned, in hyperthyroidism CT with a measurement of the thyroid density HU for DD is always indicated.

#### **Biography**

Ramchandra Sargar has completed his graduation (MBBS) from Smolensk State Medical University, Russia and clinical residency from RUDN University. Currently He is doing scientific research (PhD) from same university, (RUDN University). He has published the articles not only in Russian journals (Web of Science) but also in International Journals (Scopus). Area of research interest is early diagnosis of thyroid gland diseases.

rama.sargar@gmail.com



11th International Conference on

## **Endocrinology and Diabetology**

Amos Gelbard, J Clin Mol Endocrinol 2018, Volume 3 DOI: 10.21767/2572-5432-C2-005

## CORTISOL AS THE CAUSE FOR SEVERAL DISEASES AND FOLIC ACID AND VITAMIN B12 AS POSSIBLE THERAPEUTIC TARGETS

#### **Amos Gelbard**

Zefat Academic College, Zefat, Israel

Background: This research first hypothesis is that Cortisol, the hormone in charge of sugar transfusion to the bloodstream to handle stressful situations is what's causing Alzheimer's disease because high levels of this hormone for prolonged periods of time lead to deterioration of Secretases alpha beta and gamma, in charge of the peptide of beta amyloid within the neurons. The 2nd hypothesis is that Diabetics consumption of glucose also stems from wanting to deter hyper cortisol secretion.

**Methods:** This research is a review of many studies showing correlation between Alzheimer's disease and Diabetes as well as other illnesses (Hypertension, Cushing Syndrome and Schizophrenia) with High Cortisol Levels, as well as low Vitamin B12 and Folic Acid Levels and high levels of Homocysteine.

Results: In Alzheimer's Diseases, Diabetes, Hypertension, Schizophrenia and Cushing Syndrome, High Cortisol Levels as well as Low Folic Acid and Vitamin B12 levels are evident

Conclusions: This proves true the hypotheses brought in the background section regarding both AD and Diabetes to stem from Cortisol secretion and basically from dealing with stress and stressful everyday lives. What these finding suggest is that a possible way of downgrading Cortisol Levels and preventing or even treating said diseases is by maintaining a healthy diet of folic acid and vitamin b12 and that deficiency of these vitamins could possibly not only cause the above diseases but also to be the cause of stress itself

#### **Biography**

Dr. Amos Gelbard is currently working in Zefat Academics Kibbutz Eilon, Israel. His International experience includes various programs, contributions and participation in different countries for diverse fields of study. Dr. Amos Gelbard's research interests reflect his wide range of publications in various national and international journals.

amosgelbard@gmail.com