TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ

Üç ayda bir yayımlanır • Üyelere ücretsiz olarak gönderilir

Sayı 43 • Temmuz - Ağustos - Eylül 2013

EndoBridge 2013 Toplantısı Gerçekleşti

Derneğimizin The Endocrine Society ile birlikte düzenlediği EndoBridge toplantılarının birincisi 23-26 Ekim 2013 tarihlerinde Antalya'da gerçekleşti. Endokrin dünyaları arasında köprü kurma vizyonu ile 2011 yılından beri hazırlıkları sürdürülen toplantıda Türkiye ve A.B.D. yanında Avrupa, Ortadoğu, Kafkaslar ve Kuzey Afrika coğrafyasındaki 16 ülkeden 450 katılımcı, diyabet ve lipid bozuklukları dahil endokrinolojinin tüm alanlarının dünyada önde gelen isimleriyle buluştu.

The Endocrine Society önceki dönem başkanlarından Prof. William Young, Prof. Robert Vigersky, Prof. Leonard Wartofsky ve American Heart Association önceki dönem başkanı Robert Eckel de EndoBridge 2013 konuşmacıları arasındaydı. Bilimsel programında 23 konferans ve 16 interaktif vaka tartışma oturumu yer alan EndoBridge 2013, sunum dili İngilizce yanında Türkçe, Rusça ve Arapça eşzamanlı tercüme yapılması ile kendi alanında bir ilke imza attı.

EndoBridge toplantılarının ikincisi 23-26 Ekim 2014 tarihleri arasında Antalya'da düzenlenecektir.

Clinical Endocrinology Update Türk – Amerikan Ortak Toplantısı

Derneğimiz ve The Endocrine Society uluslararası işbirliği çerçevesinde düzenlenen ilk Türk – Amerikan ortak bilimsel toplantısı 25 Eylül 2013 tarihinde A.B.D.'nin New Orleans şehrinde gerçekleştirildi. 65. Clinical Endocrinology Update (CEU) toplantısı öncesinde yer alan yarım günlük oturum
The Endocrine Society açısından bir başka ülke endokrin derneği ile birlikte A.B.D.'de yapılan ilk bilimsel toplantı oldu. "*Joint Session on Insulin Therapy*" başlığı altında interaktif küçük grup tartışması formatında yapılan toplantıya CEU komitesi başkanı Prof. Carolyn Becker (Harvard Üniversitesi), Prof. David D'Alessio (Cincinnati Üniversitesi), Prof. Guillermo Umpierrez (Emory Üniversitesi) Prof. Sadi Gündoğdu (İstanbul Üniversitesi) ve Prof. Okan Bülent Yıldız (Hacettepe Üniversitesi) ile birlikte Türkiye'den 15 meslektaşımız katıldı. NovoNordisk tarafından koşulsuz eğitim desteği verilen toplantı, derneğimiz ve The Endocrine Society tarafından sertifikalandırıldı.

KONGRE VE KURSLARIMIZ

Bilimsel Kongreler ve Uluslararası Sempozyumlar

Ayrıntılara ve 2013 yılına ait Bilimsel Toplantı Takvimine derneğimiz internet sayfasından (www.temd.org.tr) ulaşabilirsiniz.

01-03 Aralık 2013
3rd ENEA Workshop: Hypopituitarism
Tel-Aviv, Israil
http://www.eneassoc.org/meetings.htm

02-06 Aralık 2013
World DiabetesCongress Melbourne (IDF 2013)
Melbourne, Australia
http://www.idf.org/worlddiabetescongress

12 – 15 Aralık 2013
IOF Regionals 4th Asia-Pacific Osteoporosis Meeting
Hong Kong
http://www.iofbonehealth.org/hongkong-2013

01-02 Şubat 2014
International Clinical Update in Endocrinology
Hyderabad, India
www.icuendo.org

05-07 Şubat 2014
23rd IOF Advanced Training Course on Osteoporosis
Geneva, Switzerland
http://www.iofbonehealth.org/advanced-training

02-05 Nisan 2014
IOF - ESCEO World Congress on Osteoporosis Seville 2014
Spain
http://www.wco-iof-esceo.org/

10-12 Nisan 2014
14th ESE Postgraduate Training Course in Clinical Endocrinology
Vilnius, Lithuania
http://www.ese-hormones.org

24 -27 Mart 2014
Society for Endocrinology BES 2014
The ACC, Liverpool, UK
http://www.endocrinology.org

02 -0 5 Nisan, 2014
IOF-ESCEO World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases
Seville, Spain
http://www.wco-iof-esceo.org

23-27 Nisan 2014
50. Ulusal Diyabet Kogresi
Rixos Sungate Hotel
Beldibi - Antalya
http://www.diyabetkongresi2014.org/

03-07 Mayıs 2014
16th European Congress of Endocrinology (ECE2014)
Wroclaw, Poland
http://www.ece2014.org/

21-25 Mayıs 2014
36. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi
Cornelia Diamond Hotel, Antalya
http://www.temhk2014.org/

14 - 18 May 2014
AACE 23rd Annual Scientific and Clinical Congress
Las Vegas, NV,USA
http://am.aace.com

28 - 31 Mayıs 2014
21st European Congress on Obesity
Sofia,Bulgaria
http://eco2014.easo.org/

13 - 17 Haziran 2014
American Diabetes Association 74th Scientific Sessions
San Francisco, CA,USA
http://professional.diabetes.org

21-24 Haziran 2014
ICE/ENDO 2014
Chicago, Illinois
https://www.endocrine.org/endo-2014

06 - 10 Eylül 2014
38th Annual Meeting of the European Thyroid Association
Santiago de Compostela, Spain
http://www.eurothyroid.com/futureevents.html

10 - 13 Eylül 2014
16th Congress of the European Neuroendocrine Association
Sofia,Bulgaria
http://www.eneassoc.org/

15-19 Eylül 2014
50th EASD Annual Meeting,
Vienna, Austria
www.easd.org

29 Ekim - 02 Kasım 2014
84th Annual Meeting of the American Thyroid Association
Coronado, CA,USA
http://www.thyroid.org

Literatürden Seçmeler

Referral bias in defining the phenotype and prevalence of obesity in polycystic ovary syndrome.

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Abstract

Background: The described phenotype of the polycystic ovary syndrome (PCOS) has been primarily based on findings in a referred (self or otherwise) population. It is possible that the phenotype of PCOS would be different if the disorder were to be detected and studied in its natural (unbiased) state.

Objective: Our objective was to compare the phenotype of PCOS detected in an unselected population with that identified in a referral population.

Participants: Participants included 292 PCOS patients identified at a tertiary care outpatient facility (referral PCOS) and 64 PCOS women (unselected PCOS) identified through the screening of a population of 668 seeking a pre-employment physical. Among the women undergoing a pre-employment physical, 563 did not demonstrate features of the disorder (unselected controls). All PCOS subjects met the National Institutes of Health 1990 criteria for the disorder.

Main Outcome Measures: We estimated prevalence of obesity and severity of disease burden.

Results: Referral PCOS subjects had greater mean body mass index and hirsutism score and higher degrees of hyperandrogenemia, were more likely to be non-Hispanic White (83.90%), and demonstrated a more severe PCOS subphenotype than unselected PCOS or unselected controls. The prevalence of obesity and severe obesity in referral PCOS was 2.3 and 2.5 times greater than estimates of the same in unselected PCOS and 2.2 and 3.8 times greater than estimates in unselected controls, respectively. Alternatively, unselected PCOS subjects had a prevalence of obesity and severe obesity and a mean body mass index similar to those of the general population from which they were derived.

Conclusion: The phenotype of PCOS, including the racial/ethnic mix, severity of presentation, and rate of obesity, is affected significantly by whether the PCOS subject arises from a referral population or through unselected screening, likely reflecting the degree of patient concern and awareness and access to healthcare.

Interventions for the metabolic dysfunction in polycystic ovary syndrome.

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Abstract

Polycystic ovary syndrome (PCOS) is associated with metabolic disturbances including obesity, insulin resistance, diabetes and dyslipidemia. Cardiometabolic risk should be assessed at regular intervals starting from diagnosis. A comprehensive clinical evaluation includes determination of body mass index, waist circumference, blood pressure and measurement of serum lipid and glucose levels in all women with PCOS. A standard 2-h 75g oral glucose tolerance test is required for women with a body mass index over 25kg/m(2) and with other risk factors for glucose intolerance. No long-term data are available for the risk or benefit of any medical intervention for metabolic dysfunction of PCOS. For the initial management of metabolic dysfunction in PCOS, available guidelines recommend lifestyle intervention which improves androgen excess and insulin resistance without significant effect on glucose intolerance or dyslipidemia. Pharmacological interventions include insulin sensitizing agents and statins. Metformin is the most commonly prescribed insulin sensitizer in PCOS. Available randomized controlled trials suggest that metformin improves insulin resistance without any effect on body mass index, fasting glucose or lipid levels. Short term use of statins alone or in combination with metformin decreases total cholesterol, low-density lipoprotein-cholesterol and triglycerides in PCOS patients with dyslipidemia. Low dose oral contraception in PCOS appears not to be associated with clinically significant metabolic dysfunction.

Insulin Resistance in Brain and Possible Therapeutic Approaches.

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Abstract

Although the brain has long been considered an insulin-independent organ, recent research has shown that insulin has significant effects on the brain, where it plays a role in maintaining glucose and energy homeostasis. To avoid peripheral insulin resistance, the brain may act via hypoinsulinemic responses, maintaining glucose metabolism and insulin sensitivity within its own confines; however, brain insulin resistance may develop due to environmental factors. Insulin has two important functions in the brain: controlling food intake and regulating cognitive functions, particularly memory. Notably, defects in insulin signaling in the brain may contribute to neurodegenerative disorders. Insulin resistance may damage the cognitive system and lead to dementia states. Furthermore, inflammatory processes in the hypothalamus, where insulin receptors are expressed at high density, impair local signaling systems and cause glucose and energy metabolism disorders. Excessive caloric intake and high-fat diets initiate insulin and leptin resistance by inducing mitochondrial dysfunction and endoplasmic reticulum stress in the hypothalamus. This may lead to obesity and diabetes mellitus (DM). Exercise can enhance brain and hypothalamic insulin sensitivity, but it is the option least preferred and/or continuously practiced by the general population. Pharmacological treatments that increase brain and hypothalamic insulin sensitivity may provide new insights into the prevention of dementia disorders, obesity, and type 2 DM in the future.

Effect of growth hormone, hyperbaric oxygen and combined therapy on the gastric serosa.

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Abstract

Aim: To investigate the role of growth hormone (GH), hyperbaric oxygen therapy (HBOT) and combined therapy on the intestinal neomucosa formation of the gastric serosa.

Methods: Forty-eight male Wistar-albino rats, weighing 250-280 g, were used in this study. The rats were divided into four groups (n = 12): Group 1, control, gastric serosal patch; Group 2, gastric serosal patch + GH; Group 3, gastric serosal patch + HBOT; and Group 4, gastric serosal patch + GH + HBOT. Abdominal access was achieved through a midline incision, and after the 1-cm-long defect was created in the jejunum, a 1 cm × 1 cm patch of the gastric corpus was anastomosed to the jejunal defect. Venous blood samples were taken to determine the insulin-like growth factor 1 (IGF-1) and insulin-like growth factor binding protein 3 (IGFBP-3) basal levels. HBOT was performed in Groups 3 and 4. In Groups 2 and 4, human GH was given subcutaneously at a dose of 2 mg per kg/d for 28 d, beginning on the operation day. All animals were sacrificed 60 d after surgery. The jejunal segment and the gastric anastomotic area were excised for histological examination. The inflammatory process, granulation, collagen deposition and fibroblast activity at the neomucosa formation were studied and scored. Additionally, the villus density, villus height, and crypt depth were counted and recorded. The measurements of villus height and crypt depth were calculated with an ocular micrometer. New vessel growth was determined by calculatingeach new vessel in a 1 mm(2) area.

Results: In the histological comparison of groups, no significant differences were observed between the control group and Groups 2 and 3 with respect to epithelialization, granulation, fibroblastic activity and the inflammatory process, but significant differences were present between the control group and all others groups (Groups 2-4) with respect to angiogenesis ($P < 0.01$) and collagen deposition ($P < 0.05$, $P < 0.01$). Significant differences between the control group and Group 4 were also observed with respect to epithelialization and fibroblastic activity ($P < 0.01$ and $P < 0.05$, respectively). There were significant differences in villus density in all of groups compared with the control group ($P < 0.05$). Crypt depth was significantly greater in Group 4 than in the control group ($P < 0.05$), but no other groups had deeper crypts. However, villus height was significantly longer in Groups 2 and 4 than in the control group ($P < 0.05$). The comparison of groups revealed, significant difference between control group and Groups 2 and 4) with respect to the levels of IGF-1 and IGFBP-3 ($P < 0.01$) 3 wk after the operation.

Conclusion: HBOT or GH and combined therapy augmented on neomucosal formation. The use of combined therapy produced a synergistic effect on the histological, morphological and functional parameters.

Evaluation of Epicardial Fat Tissue Thickness in Patients with Primary Hyperparathyroidism.

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Abstract

Objective: Primary hyperparathyroidism (pHPT) affects the cardiovascular system, and epicardial fat tissue (EFT) thickness is closely associated with cardiovascular diseases and atherosclerosis. Despite this, the association between EFT thickness and pHPT has not been studied in clinical settings. Thus, this study aimed to assess EFT thickness in patients with pHPT.Methods: The study included 38 patients with pHPT and 40 healthy controls. EFT thickness, carotid intima-media thickness (CIMT), serum levels of parathormone (PTH) and calcium, and blood chemistry profiles were determined in all subjects. Correlation analysis and regression analysis were performed with EFT thickness and CIMT as dependent variables and age; systolic and diastolic blood pressure; body mass index (BMI); presence of diabetes mellitus; and free plasma glucose (FPG), PTH, and serum Ca levels as independent variables.Results: Both the mean EFT thickness and the mean CIMT were significantly greater in the pHPT group than the control group ($P < 0.001$ for both). The correlation analysis showed that the EFT thickness was significantly correlated with CIMT, age, systolic blood pressure, and PTH and serum Ca levels. Further, the regression analysis showed that the EFT thickness retained its independent and positive association with FPG and serum Ca levels.Conclusions: The results of this study indicate that EFT thickness may be a useful marker of early atherosclerosis in patients with pHPT. Further, the increase in EFT thickness in patients with pHPT appears to be especially due to hypercalcaemia.

Rosiglitazone decreases fasting plasma peptide YY3-36 in type 2 diabetic women: a possible role in weight gain?

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Abstract

Rosiglitazone often results in weight gain. We hypothesized that rosiglitazone may modulate circulating levels of ghrelin and peptide YY(3-36) and this modulation may be related to weight-gaining effect of this agent. This study was designed as an open-label, randomized, controlled trial of 3-month duration. Women with newly diagnosed type 2 diabetes were studied. Twenty-eight of the 55 eligible participants were randomly assigned to receive rosiglitazone (4 mg/d). Twenty-seven patients with diabetes matched for age and body mass index served as controls on diet alone. We evaluated the effects of 3 months of rosiglitazone treatment on fasting peptide YY(3-36) and ghrelin levels, and anthropometric measurements. The 3-month administration of rosiglitazone reduced fasting plasma peptide YY(3-36) levels by 25%, the between-group difference was statistically significant. No effect of this thiazolidinedione compound on fasting ghrelin concentrations was observed at the end of study. The ghrelin/body mass index ratio also did not change significantly after treatment. Seventy-five percent of the women with diabetes complained of increased hunger at the end of study. Nevertheless, all subjects exhibited a decrease in fasting PYY levels after 3 months of rosiglitazone therapy, irrespective of the levels of hunger. There was no significant correlation between changes in peptide YY(3-36) and those in anthropometric parameters and insulin sensitivity at the end of the study. Rosiglitazone-induced decrease in fasting peptide YY(3-36) levels may in part contribute to orexigenic and weight-gaining effect of this thiazolidinedione derivative.

Metabolic and cardiovascular impact of non-functioning adrenal adenomas: a clinical dilemma.

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Abstract

There is growing evidence suggesting a causative relationship between adrenal adenomas and metabolic and cardiovascular deteriorations. Although demonstrated frequently in subjects with subclinical Cushing Syndrome, subjects with non-functioning adrenal adenomas feature a variety of metabolic and cardiovascular consequences. In this review, current data regarding this issue and possible underlying mechanisms have been summarized.

Serum adipokines and low density lipoprotein subfraction profile in hypopituitary patients with growth hormone deficiency.

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Abstract

The aim was to evaluate the concentrations of lipid subfractions in relation to adipokines and metabolic parameters in adult growth hormone (GH)-deficient hypopituitary patients on conventional replacement therapy. The study included 21 GH deficient-hypopituitary patients (age: 36.0 ± 15.1 years, male/female: 7/14) on conventional replacement therapy other than GH and 20 comparable controls (age: 37.3 ± 14.0 years, male/female: 6/14). Lipid subfractions (Lipoprint system), serum adipokine (leptin, adiponectin, resistin) concentrations, body composition, a surrogate marker for insulin resistance (HOMA) and conventional lipid profile were evaluated. No statistically significant difference was found with respect to HOMA, adipokine concentrations and anthropometric parameters between patients and controls except for significantly increased waist-to-hip ratio in hypopituitary group. Total and LDL cholesterol concentrations were significantly higher in the patients. LDL particle size (268.88 ± 3.16 vs. 271.31 ± 3.11 Å , $P = 0.151$) and small-dense LDL subfraction did not differ significantly. According to logistic regression analysis, triglyceride concentrations ≥1.69 mmol/L was the sole parameter significantly and independently predicted small (<268 Å) LDL particle size ($P = 0.019$) in the whole group. Increased triglyceride concentrations affect LDL particle size in GH-deficient hypopituitary patients. Small dense LDL seems not directly contribute to atherogenic potential in hypopituitarism.

Assessment of cardiac autonomic functions by heart rate recovery, heart rate variability and QT dynamicity parameters in patients with acromegaly.

Dural M, Kabakcı G, Cınar N, Erbaş T, Canpolat U, Gürses KM, Tokgözoğlu L, Oto A, Kaya EB, Yorgun H, Sahiner L, Dağdelen S, Aytemir K.
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Abstract

Cardiovascular complications are the most common causes of morbidity and mortality in acromegaly. However, there is little data regarding cardiac autonomic functions in these patients. Herein, we aimed to investigate several parameters of cardiac autonomic functions in patients with acromegaly compared to healthy subjects. We enrolled 20 newly diagnosed acromegalic patients (55 % female, age:45.7 ± 12.6 years) and 32 age- and gender-matched healthy subjects. All participants underwent 24 h Holter recording. Heart rate recovery (HRR) indices were calculated by subtracting 1st, 2nd and 3rd minute heart rates from maximal heart rate. All patients underwent heart rate variability (HRV) and QT dynamicity analysis. Baseline characteristics were similar except diabetes mellitus and hypertension among groups. Mean HRR1 (29.2 ± 12.3 vs 42.6 ± 6.5, $p = 0.001$), HRR2 (43.5 ± 15.6 vs 61.1 ± 10.8, $p = 0.001$) and HRR3 (46.4 ± 16.2 vs 65.8 ± 9.8, $p = 0.001$) values were significantly higher in control group. HRV parameters as, SDNN [standard deviation of all NN intervals] ($p = 0.001$), SDANN [SD of the 5 min mean RR intervals] ($p = 0.001$), RMSSD [root square of successive differences in RR interval] ($p = 0.001$), PNN50 [proportion of differences in successive NN intervals >50 ms] ($p = 0.001$) and high-frequency [HF] ($p = 0.001$) were significantly decreased in patients with acromegaly; but low frequency [LF] ($p = 0.046$) and LF/HF ($p = 0.001$) were significantly higher in acromegaly patients. QTec ($p = 0.009$), QTac/RR slope ($p = 0.017$) and QTec/RR slope ($p = 0.01$) were significantly higher in patients with acromegaly. Additionally, there were significant negative correlation of disease duration with HRR2, HRR3, SDNN, PNN50, RMSSD, variability index. Our study results suggest that cardiac autonomic functions are impaired in patients with acromegaly. Further large scale studies are needed to exhibit the prognostic significance of impaired autonomic functions in patients with acromegaly.

Cavernous sinus invasion might be a risk factor for apoplexy.

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Abstract

The clinical features of pituitary hemorrhage vary from asymptomatic to catastrophic. We aimed to evaluate the frequency, symptoms, outcome and risk factors of clinical and subclinical pituitary apoplexy (PA) patients. In a retrospective analysis, charts of 547 pituitary adenoma patients from 2000 to December 2011 were reviewed. The patients were classified as clinical or subclinical PA. We compared the results with a control group without PA. Anterior pituitary hormones for endocrine dysfunction, histology, Ki-67 labeling index (LI), and p53 positivity of the tumor and pituitary imaging by magnetic resonance imaging were evaluated. Thirty-two patients (5.8 %) were diagnosed as clinical and 81 patients (14.8 %) as subclinical PA. Among PA patients, 85 patients (75.2 %) had a macroadenoma, 8 patients (7.1 %) had a microadenoma. The most frequent symptoms at presentation in PA patients were visual loss and headache. The patients with macroadenoma had a significantly increased risk for PA ($p < 0.05$). Hormone inactive tumors were significantly associated with the development of clinical PA ($p = 0.05$). Dopamine agonist use was significantly higher in subclinical PA patients ($p = 0.001$). Sex, Ki-67 LI, p53 positivity, diabetes mellitus, hypertension, somatostatin analogue and anticoagulant use did not predispose to PA whereas cavernous sinus invasion predisposed patients to PA ($p < 0.01$). The incidence of subclinical PA is higher than that of clinical PA. The development of PA is associated with macroadenomas. Clinically non-functioning tumors predispose to clinical PA. Cavernous sinus invasion of the tumor may be a sign of increased risk of bleeding.

The association between serum asymmetric dimethyl arginine levels and a history of gestational diabetes among healthy women.

Gumus II, Kargili A, Kaygusuz I, Derbent A, Karakurt F, Kasapoglu B, Uysal S.
Department of Obstetrics and Gynecology, Fatih University School of Medicine, Ankara, Turkey.

Abstract

In recent years, asymmetric dimethyl arginine (ADMA) has emerged as an early marker and/or mediator of endothelial dysfunction and it has been proved to be a novel, independent risk factor of cardiovascular and metabolic diseases. Our aim in this study was to compare the ADMA concentrations among patients with a history of gestational diabetes mellitus (GDM) with controls. Thirty women with a history of GDM and 40 age-matched and BMI-matched healthy controls were enrolled in this study. ADMA concentrations, fasting blood glucose levels, 75-g oral glucose tolerance test (OGTT) second hour plasma glucose levels, and insulin levels were compared between two groups. The fasting blood glucose levels were also significantly higher in patients with GDM history. Although second hour values of 75-g OGTT were higher in patients with GDM history, the difference between groups was not statistically significant. However, the insulin and homeostatic model assessment insulin resistance levels were statistically significantly higher in patients with a history of GDM. The concentrations of ADMA were found to be statistically higher in patients with a history of GDM (0.45 ± 0.11 vs. 0.31 ± 0.13 µmol/l, respectively; $P = 0.01$). This study shows that women who had a history of GDM are under risk for cardiovascular diseases, although they seem to be healthy and have normal blood biochemical levels, because of elevated serum ADMA levels. Clinicians should be aware of this increased cardiovascular disease risk among patients with a history of GDM.

Levels of thrombin activatable fibrinolysis inhibitor in gestational diabetes mellitus.

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Abstract

Thrombin-activatable fibrinolysis inhibitor (TAFI) is a procarboxypeptidase, which is synthesised in liver and activated by thrombin and the thrombin-thrombomodulin complex. TAFI suppresses fibrinolysis by removing carboxy-terminal lysine residues from partially degraded fibrin. In this study we aimed to assess the circulating levels of TAFI antigen, 'a fibrinolytic parameter' in women with gestational diabetes (GDM). Thirty-four pregnant women with GDM and 50 pregnant women with normal glucose tolerance were included in the study. Plasma TAFI antigen levels were significantly higher in pregnant women with GDM when compared with controls. Increased TAFI levels may contribute to the decreased fibrinolytic potency, causing a thrombophilic state. GDM is regarded as a specific form of diabetes, and it could in addition be a predictor of type 2 diabetes mellitus in the future and the risk of complications due to hypercoagulability increases in this disease. Increased TAFI levels may also have a role in increased risk of hypercoagulability.

Does hormone replacement therapy have beneficial effects on renal functions in menopausal women?

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Abstract

Background: The study was carried out to evaluate the possible effects of hormone replacement therapy (HRT) on renal functions in postmenopausal women.

Methods: A total of 85 postmenopausal women without a history of medical illness were enrolled in the study. They were divided into HRT users and control groups. After 30 weeks of HRT use, the changes in serum urea, creatinine, uric acid, urinary protein, urinary creatinine, urinary protein/creatinine ratio and glomerular filtration rate (GFR) (mL/min/1.73 m(2)) were evaluated.

Results: HRT was associated with statistically significant increases in glomerular filtration rate ($p < 0.01$), while serum urea, creatinine, uric acid, urinary protein, urinary creatinine and urinary protein/creatinine ratio did not change significantly in both groups.

Conclusion: In our study, we suggested that usage of hormone replacement therapy appeared to affect renal functions in postmenopausal women. There were beneficial effects of HRT on GFR in our postmenopausal patients. HRT may have possible protective mechanisms for kidney against adverse effects of aging.

Fetuin-A levels in hyperthyroidism.

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Abstract

Objective: Fetuin-A is a protein secreted from the liver that inhibits arterial calcification deposition and can contribute to insulin resistance. Hyperthyroidism is also associated with insulin resistance. It is not known whether hyperthyroidism has an effect on fetuin-A levels.

Methods: We measured fetuin-A levels and homeostasis model of assessment-insulin resistance before hyperthyroidism treatment was initiated and after euthyroidism was achieved. A total of 42 patients diagnosed with hyperthyroidism were enrolled in this study. Fetuin-A, insulin, high-sensitivity C-reactive protein, fasting blood glucose, free T3 (fT3), free T4 (fT4), and thyrotropin were measured before and after euthyroidism was established.

Results: Basal fasting blood glucose, high-sensitivity C-reactive protein, insulin, c-peptide, homeostasis model of assessment-insulin resistance, fT3, fT4 and fetuin-A levels were significantly decreased after euthyroidism was achieved (Table 1). Basal fasting blood glucose (r:0.407, p:0.008), high-sensitivity C-reactive protein (r:0.523, p<0.0001), insulin (r:0.479, p:0.001), homeostasis model of assessment-insulin resistance (r:0.541, p<0.0001), fT3 (r:0.492, p:0.001) and fT4 (r:0.473, p:0.002) were positively correlated with basal fetuin-A levels. Basal thyrotropin levels were significantly negatively correlated (r:-0.553, p<0.0001) with basal fetuin-A levels.

Conclusion: Our findings suggest that hyperthyroidism influences fetuin-A levels.

Effect of insulin degludec versus sitagliptin in patients with type 2 diabetes uncontrolled on oral antidiabetic agents.

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Scripps Whittier Diabetes Institute, San Diego, CA, USA.

Abstract

Aim: The efficacy and safety of insulin degludec (IDeg), a new basal insulin with an ultra-long duration of action, was compared to sitagliptin (Sita) in a 26-week, open-label trial.

Methods: Insulin-naïve subjects with type 2 diabetes [n = 458, age: 56 years, diabetes duration: 7.7 years, glycosylated haemoglobin (HbA1c): 8.9% (74 mmol/mol)] were randomized (1 : 1) to once-daily IDeg or Sita (100 mg orally) as add-on to stable treatment with 1 or 2 oral antidiabetic drugs (OADs).

Results: Superiority of IDeg to Sita in improving HbA1c and fasting plasma glucose (FPG) was confirmed [estimated treatment difference (ETD) IDeg-Sita for HbA1c: -0.43%-points [95% confidence interval (CI): -0.61; -0.24, $p < 0.0001$] and for FPG: -2.17 mmol/l (95% CI: -2.59; -1.74, $p < 0.0001$)]. HbA1c < 7% (<53 mmol/mol) was achieved by 41% (IDeg) versus 28% (Sita) of patients, estimated odds ratio IDeg/Sita: 1.60 (95% CI: 1.04; 2.47, $p = 0.034$). There was no statistically significant difference in the rate of nocturnal confirmed hypoglycaemia between IDeg and Sita [0.52 vs. 0.30 episodes/patient-year, estimated rate ratio (ERR): IDeg/Sita: 1.93 (95% CI: 0.90; 4.10, $p = 0.09$)]. Rates of overall confirmed hypoglycaemia were higher with IDeg than with Sita [3.1 vs. 1.3 episodes/patient-year, ERR IDeg/Sita: 3.81 (95% CI: 2.40; 6.05, $p < 0.0001$)]. IDeg was associated with a greater change in body weight than Sita [ETD IDeg-Sita: 2.75 kg (95% CI: 1.97; 3.54, $p < 0.0001$)]. The overall rates of adverse events were low and similar for both groups.

Conclusions: In patients unable to achieve good glycaemic control on OAD(s), treatment intensification with IDeg offers an effective, well-tolerated alternative to the addition of a second or third OAD.

Adrenocortical carcinoma: clinical outcomes and prognosis of 330 patients at a tertiary care center.

Ayala-Ramirez M, Jasim S, Feng L, Ejaz S, Deniz F, Busaidy N, Waguespack SG, Naing A, Sircar K, Wood CG, Pagliaro L, Jimenez C, Vassilopoulou-Sellin R,Habra MA.
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Abstract

Objective: Adrenocortical carcinoma (ACC) is a rare malignancy with a poor prognosis. Herein, we describe the clinical features and outcomes for a large series of ACC patients.

Design and Methods: Retrospective review of ACC patients seen at The University of Texas MD Anderson Cancer Center from 1998 through 2011.

Results: A total of 330 patients with median age at diagnosis of 48.5 years; 12 (3.6%) patients were under 18 years. Hormonally functioning tumors represented 41.8% (n=138) of all cases. Surgical resection for the primary tumor was done in 275 (83.3%) patients (45 at MD Anderson (16.4%)). For those who had surgical resection, the median local-recurrence-free time was 1.04 years. Factors associated with local recurrence included positive surgical margins (P=0.007) and advanced disease stage (P=0.026). Median overall survival time for all patients was 3.21 years. Median survival times were 24.1, 6.08, 3.47, and 0.89 years for stages I, II, III, and IV respectively. In multivariable analysis, older age, functioning tumors, and higher disease stage remained significant prognostic factors associated with poor survival.

Conclusion: ACC prognosis remains poor with the use of currently available treatments. Older age, functioning tumors, and incomplete resections are clinical factors associated with poor survival. Surgical expertise is important to achieve complete resections and to improve outcome.

A large deletion of the AVPR2 gene causing severe nephrogenic diabetes insipidus in a Turkish family.

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Abstract

X-linked nephrogenic diabetes insipidus (NDI) is a rare hereditary disease caused by mutations in arginine vasopressin type 2 receptor (AVPR2) and characterized by the production of large amounts of urine and an inability to concentrate urine in response to the antidiuretic hormone vasopressin. We have identified a novel 388 bp deletion starting in intron 1 and ending in exon 2 in the AVPR2 gene in a patient with NDI and in his family. We have revealed that this mutation is a de novo mutation for the mother of the proband patient. Prospective clinical data were collected for all family members. The water deprivation test confirmed the diagnosis of diabetes insipidus. The patient has severe symptoms like deep polyuria nocturia, polydipsia, and fatigue. He was given arginine vasopressin treatment while he was a child. However, he could not get well due to his nephrogenic type of illness. Both of his nephews have the same complains in addition to failure to grow. We have sequenced all exons and intron-exon boundaries of the AVPR2 gene of all family members. The analyses of bioinformatics and comparative genomics of the deletion were done via considering the DNA level damage. AVPR2 gene mutation results in the absence of the three transmembrane domains, two extracellular domains, and one cytoplasmic domain. Three-dimensional protein structure prediction was shown. We concluded that X-linked NDI and severity of illness in this family is caused by a novel 388 bp deletion in the AVPR2 gene that is predicted to truncate the receptor protein, and also this deletion may lead to dysfunctioning in protein activity and inefficient or inadequate binding abilities.

A retrospective cohort analysis of the efficacy of adjuvant radiotherapy after primary surgical resection in patients with adrenocortical carcinoma.

Habra MA, Ejaz S, Feng L, Das P, Deniz F, Grubbs EG, Phan A, Waguespack SG, Ayala-Ramirez M, Jimenez C, Perrier ND, Lee JE, Vassilopoulou-Sellin R.
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Abstract

Context: Adrenocortical carcinoma (ACC) is a rare malignancy with high recurrence and mortality rates. The role of adjuvant radiation therapy (RT) to improve outcome remains unclear.

Objective: The aim of this study was to evaluate the impact of adjuvant RT on overall survival and recurrence rates of ACC patients.

Design: We conducted a retrospective cohort study of select ACC patients who were seen at The University of Texas MD Anderson Cancer Center (MDACC) between 1998 and 2011. All patients in this study underwent primary tumor resection and received adjuvant RT within 3 months of primary surgical resection prior to referral to the MDACC. We compared patients who had surgery and adjuvant RT with patients who had surgery alone.

Results: Baseline characteristics and adjuvant mitotane use were not significantly different between the adjuvant RT group (n = 16) and the non-RT group (n = 32). Local recurrence occurred in seven patients (43.8%) who received RT and 10 patients (31.3%) in the control group. At 5 yr, the estimated local recurrence-free rate (95% confidence interval) was 53% (32-87%) in the RT group and 67% (52-86%) in the non-RT group (P = 0.53). The distributions of time to distant recurrence and recurrence-free survival were not significantly different between the two groups. Using a multivariate Cox proportional hazards model for overall survival, the hazard ratio for RT use was 1.593 (95% confidence interval, 0.707-3.589; P = 0.26) after adjusting for stage and adjuvant mitotane therapy.

Conclusions: ACC has high rates of recurrence. In our study, RT did not improve clinical outcomes in patients who received their initial care in the community. We believe there is a need for a collaborative, multicenter, prospective randomized trial to evaluate the role of adjuvant treatments (both mitotane and RT) to assess their impact on recurrence patterns and survival.

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Kitap Bölümleri

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