

# Abstracts congresos internacionales 2006

Por decisión del Comité Editorial de la Revista HCUCh, a partir de este primer número del año 2007 y en adelante, solo se publicarán en la Revista los abstracts correspondientes a congresos mundiales, europeos y norteamericanos.

## ENDOCRINOLOGÍA

ENDO (ANNUAL MEETING THE ENDOCRINE SOCIETY)

BOSTON, USA

### **BRAIN DERIVED NEUROTROPHIC FACTOR (BDNF) IN SERUM OF OBESE PATIENTS BEFORE AND AFTER A LOW CALORIE DIET**

Verónica Araya, Ximena Orellana, Julio Brito, Jaime Espinoza, Carolina Bienzobas.

Objective: to determine BDNF serum level in obese patients before and after 3 months of a low calorie diet and correlating it with psychological status scores and metabolic parameters. Patients and methods: we evaluated in 12 patients both sexes the psychological status with Goldberg's 30-item General Health Questionnaire (GHQ-39) and with Stunkard & Messick Eating Behavior Questionnaire. A glucose tolerance test and BDNF were determined before and after 3 months of a low calorie diet (25 kCal/kg of ideal weight). Wilcoxon signed rank and Spearman's rho were used as statistical tests. Results: 5 males and 7 females in a range of age between 24 to 48 years old were included. There was a significant decrease in BMI, waist circumference, percentage of fat, basal and 2 hrs glycemia and Goldberg's score at the end of 3 months of diet. Also, the Stunkard & Messick Eating Behavior Questionnaire showed a significant decrease in disinhibitory score and an increase in restraint score. BDNF increase from 3061.2±2929 pg/ml to 5821.2±2932.8 pg/ml but this was not statistically significant. BDNF was correlated positively with MBI (r=0.51), waist circumference (r=0.52), percentage of fat (0.48), area under the curve of glucose (0.61) and Goldberg's score (0.72) and it correlated negatively with restriction score (r=0.46) and triglycerides (r=0.49). Conclusions: BDNF is directly related with anthropometric, psychological and metabolic factors found in obese patients then, could be one of the neuroendocrine factors connecting central nervous system and metabolic features in obesity.

## GENÉTICA

11TH INTERNATIONAL CONGRESS OF HUMAN GENETICS

BRISBANE, AUSTRALIA

### **CLINICAL FEATURES OF CHARGE SYNDROME AND 13Q22 DELETION**

Pilar Ureta, Lorena Tobella, Silvia Castillo,

Purpose: Describe the findings of a patient who fulfills the diagnostic criteria for CHARGE syndrome and presents a 13q22 deletion at the cytogenetic study. CHARGE syndrome is a genetic disorder characterized by ocular coloboma, heart defects, atresia or stenosis of the choanae, retardation of growth and/or development, genitourinary anomalies, and ears anomalies with or without deafness. Mutations and deletions at the CDH7 gene, located on 8q12.1, were recently described in patients with clinical features of this syndrome. Etiopathogenesis of this disorder is still under research. We present a male patient, with prenatal history of intrauterine growth restriction, congenital cardiopathy, and Dandy-Walker malformation. At birth the physical exam highlighted a coarse face, ocular hypertelorism, fullness of the eyelids, a broad nose with an important asymmetry of the nares, dysplastic, simple, squared shape and low set ears, micrognathia, pterigion colli with redundant nuchal skin, bilateral clinodactyly of the fifth finger, and male genitalia with a small penis and right cryptorchidism. The cardiac exam showed a holosystolic murmur grade 2/6 at the left lower sternal border.

## ABSTRACTS

Otorhinolaryngology evaluation confirmed stenosis of the right choanae and grade II-III laryngomalacia. Pseudocoarctation of the aorta and persistent ductus arteriosus were diagnosed by cardiac US and the Dandy-Walker malformation was confirmed by cerebral US. Cytogenetic exam showed a 13q22 deletion in all the cells studied. The patient died at the second day of life, before the ophthalmologic evaluation. Conclusion: Because of his heart defect, stenosis of a choanae, prenatal growth retardation, genital anomalies and dysplastic ears, the patient described fulfils the diagnostic criteria for CHARGE syndrome. The result of his cytogenetic study, a 13q22 deletion, could be helpful to elucidate a possible genetic heterogeneity of this disorder.

## INMUNOLOGÍA

AAAAI (AMERICAN ACADEMY OF ALLERGY ASTHMA & IMMUNOLOGY)  
ANNUAL MEETING 2006  
MIAMI BEACH, USA

### **PREVALENCE OF SENSITIZATION AND LATEX ALLERGY IN OPERATING ROOM WORKERS OF THE WORKER'S HOSPITAL, SANTIAGO, CHILE.**

Rodas CR, Guzmán MA, Rojas S.

**RATIONALE:** To determine the prevalence of NRL sensitization and allergy in HCW at the Worker's Hospital, Chile and correlate it with time of NRL exposure. **METHODS:** 94 HCW were interviewed asking them for time of exposure and latex-related allergy symptoms. Inhalants allergens, NRL, tropical fruits extracts and three NRL gloves brands were tested by the prick test method. Standard patch test was tested too. **RESULTS:** The median age was 40 years (25-67), 56 female and 38 male. Total sensitization rate was 12,76% (95% IC=9,32%-16,2%), with no statistical differences by sex. In the sensitized group, 3 HCW had respiratory symptoms in the workplace. Four sensitized HCW referred contact urticaria and one in the no sensitized group ( $p<0,05$ ). Sensitivity to latex family fruits was not significantly more prevalent in latex sensitive individuals. No differences in rates of sensitization for years of work or weekly hours of exposure. Fifty HCW were atopic, 10 in the sensitized group, and 40 in the no sensitized group, with statistical difference ( $p<0,05$ ). One HCW showed positive standard patch test. **CONCLUSIONS:** Sensitization doesn't increase proportionally to the time wearing NLR gloves. Urticaria an important symptom of latex allergy, and atopy is an important risk factor to develop latex sensitization.

## LABORATORIO CENTRAL

XX INTERNATIONAL CONGRESS OF CLINICAL CHEMISTRY – 2006 ANNUAL MEETING  
IFCC (INTERNATIONAL FEDERATION OF CLINICAL CHEMISTRY) / AACC (AMERICAN ASSOCIATION FOR CLINICAL CHEMISTRY)  
CHICAGO, USA

### **MEASUREMENT OF BNP PLASMATIC LEVELS IN CHILEAN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION (AMI)**

J. Aldunate, M. J. Vial, L. Sepúlveda Morales, A. M. Tong, C. Aldunate, J. Anabalón.

**Introduction:** Patients with an AMI diagnostic, who entered the Coronary Unit of the Clinical Hospital Universidad de Chile between September and December of 2005, were included in this study which used the plasmatic levels of BNP as an evolution marker after the occurrence of an AMI episode. Plasmatic levels of BNP were measured during the acute phase of the pathology to evaluate the degree of the cardiac dysfunction during an AMI, and for the 10 subsequent days, serving to the purpose of determining the prognostic value of plasmatic BNP in cases of AMI. **Materials and Methods:** The plasmatic levels of BNP were measured for 13 patients who arrived at the Coronary Unit of the Clinical Hospital of the Universidad de Chile with the diagnostic of AMI; two of these patients had a misdiagnosis, because they exhibited normal Troponin I values. During the course of their hospitalization and apart from measurements of BNP plasmatic levels, serum determinations of Troponin I and CKMB were carried. The assays used were: BNP from Abbott Laboratories, Troponin I from Ortho Clinical Diagnostics and CKMB from Roche Diagnostics. **Results:** The BNP plasmatic levels were above the normal range for the 90.9% of the patients with AMI. They progressively increased until the sixth day after the AMI episode, at this point, they descended. Two cases had an atypical evolution, in both of them the drop in the BNP plasmatic levels was never observed, either because the patient experienced a new AMI or because he died due to a mechanic failure. Both the Troponin I and the CKMB levels were as expected for the progress of an AMI. **Conclusions:** 1-The plasmatic levels of BNP are useful in the functional evaluation of patients with AMI diagnostic. 2-Those cases which do not follow the expected evolution of BNP plasmatic levels are explained by their clinical progress. 3-In Chilean population the evolution of BNP plasmatic levels is concordant to that described by literature.

## LABORATORIO ENDOCRINOLOGÍA

ANGIOGENESIS IN CANCER AND VASCULAR DISEASE

MIAMI, USA

### **VEGF EXPRESSION IS REGULATED BY NGF THROUGH TRKA RECEPTORS IN EPITHELIAL OVARIAN CANCER**

Ximena Campos, Caroline Weinstein-Oppenheimer, Verónica Tapia, Alberto Selman, Hernán E. Lara, Carmen Romero.

**INTRODUCTION:** Neurotrophins stimulate cell proliferation and differentiation in various cell types, including certain cancers (1), such as epithelial ovarian cancer. It has been shown that NGF may be a direct or indirect angiogenic factor. It has been shown that NGF induces proliferation of HUVEC (2). In addition, it has been reported that the superior cervical ganglia of newborn rats express VEGF after NGF treatment (3). The aim of this research was to examine the expression and localization of NGF and TrkA's NGF high affinity receptors in ovarian cancer tissue. Also, VEGF expression induced by NGF was evaluated in the epithelial ovarian cancer tissue. **METHODS:** The expression of NGF, TrkA and VEGF was determined in epithelial ovarian cancer and normal tissue samples by semi-quantitative RT-PCR. NGF and TrkA proteins were also localized by immunohistochemistry. The stimulation of VEGF expression by NGF was analyzed in explants of epithelial ovarian cancer by RT-PCR. The VEGF secreted into the culture media was measured by ELISA and AKT was examined by western blot. **RESULTS:** The RT-PCR analysis showed that TrkA was overexpressed in ovarian cancer compared with normal ovarian tissue, whereas NGF did not show any significant change on its transcripts. The immunohistochemical analysis showed that both, NGF and TrkA were expressed in the epithelial cells of the ovarian cancer tissue, in higher levels than in normal surface epithelial ovarian cells. NGF stimulated VEGF expression (transcript and protein) in cultured epithelial ovarian cancer explants through the trkA receptors. This effect was reverted by an antibody against NGF and by K252a, an inhibitor of Trk receptors. These results demonstrated an autocrine effect of NGF on the VEGF expression in epithelial ovarian cancer. **DISCUSSION:** The abundance of TrkA receptors in the ovarian cancer epithelial cells, together with the ability of NGF to increase the VEGF expression highlights the autocrine role of NGF in the epithelial ovarian cancer. These findings provide additional evidence that the blockade of neurotrophins actions may become a therapeutic target for the treatment of ovarian cancer.

## MEDICINA NUCLEAR

IAEA (INTERNATIONAL ATOMIC ENERGY AGENCY)

VIENA, AUSTRIA

### **COMPARISON OF SPECT AND PLANAR TECHNIQUES IN MULTIGATED EQUILIBRIUM RADIOVENTRICULOGRAPHY (MUGA): ANALYSIS OF EJECTION FRACTION AND VENTRICULAR VOLUMES.**

Teresa Massardo, Rodrigo Jaimovich, Daniela Gutiérrez, Hugo Lavados, Rita Alay, Sandra, Blanco, Gabriel Aguilera, Pamela Padilla.

**Introduction:** radioventriculography (MUGA) is a well accepted technique for ejection fraction measurement, specially in left ventricle (LVEF) due to its high accuracy and reproducibility. Currently, an automatic program is available for single photon emission tomography (SPECT), offering fast information about biventricular parameters. **Aims:** 1) Correlate side by side planar with SPECT MUGA parameters in patients with different cavity size and wall motion abnormalities 2) Evaluate inter-operator reproducibility in both methods. **Methods:** population: 83 studies included prospectively corresponding to diverse cardiac diseases; mean age: 56±14 years; 56% women. There were 34 prechemotherapy women with normal cardiac function. **Technique:** In-vivo <sup>99m</sup>Tc red blood cells labeling was used. SPECT (orbit:180° 45° collimators) and then a planar study were acquired in a Dual Head Siemens ECAM 180. **Processing:** Automatic program QBS (Cedars) was applied for SPECT, and automatic and manual processing for planar studies. LVEF and RVEF as well as ventricular end-systolic and end-diastolic volumes (ESV and EDV) were obtained. Left ventricular volumes in planar images were calculated using a prior validated count-based method without blood sampling. For reproducibility, initial routine processing of both acquisition was compared with a 2° processing performed by a different observer with similar parameters. **Analysis:** Student t test for paired samples (p≤0.05) and Pearson correlation. **Results:** I. Whole Group: Their EF and volumes are shown in Tables. There was no LVEF difference between automatic versus manual or manual versus SPECT methods. However, there was a difference between planar automatic and SPECT LVEF (p=0.039) and also between planar and SPECT RVEF (p=0.018). LV volumes were also different (p<0.05). Correlation between manual planar and SPECT was better for LVEF (r:0.845) than for RVEF (r:0.688). Correlation between automatic LVEF and SPECT was adequate (r:0.8451). In LV, volume correlations were excellent (EDV r:0.927; ESV r:0.939). II. Subgroups According Function: a) In normal function patients, left ventricular parameters were: LVEF for manual planar 55±11% and for SPECT 54±6% (p=ns); planar EDV 86±37ml and SPECT EDV 66±36ml (p=0.02); ESV were 37±18ml and 32±21ml, respectively (p=ns). b) LVEF and all volumes correlations were smaller in the group with normal ventricular function versus dysfunctional ones (r:0.76 versus 0.92). Volumes and LVEF slopes in patients with normal function were also smaller (0.68 and 0.89, respectively). See graphics. III. Reproducibility: was excellent for both EF and also LV volumes for both processing. **Conclusions:** MUGA is a reliable method for LVEF determination, with both planar and SPECT methods. In LV volumes, SPECT with count-based method correlation is also adequate. SPECT has good yield in the presence of functional abnormalities, otherwise, in small hearts with normal function a worse correlation was found, as well as underestimated volumes.

## ABSTRACTS

IAEA (INTERNATIONAL ATOMIC ENERGY AGENCY)  
VIENA, AUSTRIA

### **INFLUENCE OF EXTRACARDIAC ACTIVITY AND PERFUSION ABNORMALITIES IN THE RESULTS OF MYOCARDIAL GATED SPECT WITH COMMERCIAL SOFTWARE**

R. Jaimovich, T. Massardo, D. Gutiérrez, H. Lavados, C. Aqueveque, L. Quevedo.

Introduction: isotopic myocardial perfusion single photon emission computed tomography (SPECT) studies, gated with electrocardiogram signal, are currently used to assess coronary artery disease (CAD) patients. The excellent sensitivity of the technique for detecting ischemia or necrotic areas depends on different clinical and technical parameters, mainly, from strict quality control of the acquisition and processing. Extracardiac activity of the radiotracer (commonly in intestinal loops or liver) overlapping or adjacent to myocardium can affect the interpretation. Available software for gamma cameras includes automatic myocardial edging programs that allow manual intervention. Our interest was to assess the impact of the manual or automatic method in common clinical conditions observed using current myocardial perfusion protocols. The main hypothesis were: a) adjacent extracardiac activity affects significantly automatic edging, furthermore if perfusion abnormalities coexist b) interoperator reproducibility of the semiautomatic processing is also affected by these events. Method: from 350 myocardial SPECT perfusion tests performed in the last semester, we selected 100, (47 females, age: 63±14 y.o.), 50 with and 50 without extracardiac activity. As well, each sub-group included 25 cases with perfusion abnormalities and 25 without them. Patients that moved during the test, miscorrected by motion-correction software were excluded. <sup>99m</sup>Tc-Sestamibi was used in 77 cases (gated in both phases) and <sup>201</sup>Thallium (gated only at rest) in 23 patients. Dipyridamol stress protocol was used in 82 cases, exercise stress in 13, and 1 case with viability protocol. A Dual Head Siemens ECAM 180 was used and acquisition protocol included: orbit 180°, collimators in 45°, gated: 8 frames. The post stress acquisition was performed within the hour post-injection. All cases were processed automatically and by 4 independent operators (physicians with different level of training in nuclear cardiology, rated accordingly 1 through 4, where N°1 was the most experienced). They used the available software tools to mask and relocate the cardiac area when necessary. For the analysis, commercial software QGS and QPS (Cedars) was used. The software provides automatic functional and perfusion parameters. We analyzed left diastolic and systolic ventricular volumes (EDV and ESV), left ventricular ejection fraction (LVEF) and reversibility perfusion score (SDS) as well as perfusion defect extension, at rest. Resulting data was compared using correlation Pearson test and student t test. Results A. Whole Group.- Automatic LVEF, volumes and perfusion parameters of ischemia and rest perfusion defects are shown in Table 1. Regarding functional parameters, the mean values between processings were not statistically different for volumes and for LVEF, excluding operator 2 with 4 and Automatic with operator 4 (p<0.01). The correlations between operators and automatic software for LVEF ranged between: 0.90-0.96, interoperator ranged between 0.90-0.96; for Volumes: 0.86-0.99 and 0.87-0.98; for SDS: 0.81-0.87 and 0.81-0.94; for Extension at rest: 0.74-0.88 and 0.74-0.99, respectively. B. Comparative Analysis In Groups With And Without Extracardiac Activity.- The interoperator correlations were worse in patients with extracardiac activity compared with those without it, with a wider range of values:

Average LVEF	r: 0.93 vs 0.94 [range: 0.89-0.96 vs 0.90-0.95]
Average Volumes	r: 0.91 vs 0.93 [range: 0.83-0.98 vs 0.91-0.98]
Average SDS	r: 0.89 vs 0.92 [range: 0.85-0.92 vs 0.88-0.96]
Average Rest Extent	r: 0.86 vs 0.99 [range: 0.73-0.98 vs 0.99-0.995]

C. Comparative Analysis In Groups With And Without Myocardial Perfusion Abnormalities.- The interoperator correlations were not affected by the presence of perfusion defects versus those patients with normal radiotracer uptake, but a wider range was observed among the latter:

Average LVEF	r: 0.95 vs 0.89 [range: 0.93-0.98 vs 0.82-0.95]
Average Volumes	r: 0.94 vs 0.85 [range: 0.92-0.99 vs 0.74-0.96]
Average SDS	r: 0.88 vs 0.74 [range: 0.85-0.93 vs 0.48-0.88]
Average Rest Extent	r: 0.99 vs 0.47 [range: 0.98-0.99 vs 0.79-0.98]

Conclusions:

- Our patient database included mostly Sestamibi as a radiotracer and Dipyridamol as pharmacological stress studies. These factors increase the presence of liver activity by biliar tracer excretion to intestines and splancnic vasodilation respectively. Accordingly, our incidence of extracardiac activity was higher than found in exercise and Thallium protocols.
- Extracardiac activity affects the assessment of the automatic QGS software in a moderate degree, even when manual intervention is applied. The reproducibility of the results among different operators worsens when significant hepatic or intestinal activity close to the myocardium is present.
- The presence of perfusion abnormalities does not interfere with the reproducibility of the program, and, surprisingly, a better correlation among operators was found in all functional and perfusion parameters studied, when they were present.
- Interoperator reproducibility was higher for functional than for perfusion parameters.

**OTORRINOLARINGOLOGÍA**

AAO-HNSF ANNUAL MEETING  
(THE AMERICAN ACADEMY OF OTOLARYNGOLOGY - HEAD AND NECK SURGERY FOUNDATION)  
TORONTO, CANADA

**HEARING LOSS ACCORDING TO HISTOLOGIC CHANGES OF THE STAPES**

Michel Royer, Carlos Stott-Caro, Constanza Jimena Valdés.

Objectives: To determine histological changes in the structure of the stapes, classify them according to bone remodeling, and compare hearing loss. Methods: A prospective study was conducted from October 2003 to August 2005, in which patients with otosclerosis who were subjected to stapedostomy were included. The suprastructure of the stapes was sent for histological evaluation and were classified in four groups. The audition levels between the pre- and postsurgical groups were compared, using pure audiometric tones, considering a p value of less than 0.05 significant.

AAO-HNSF ANNUAL MEETING  
(THE AMERICAN ACADEMY OF OTOLARYNGOLOGY - HEAD AND NECK SURGERY FOUNDATION)  
TORONTO, CANADA

**AIRBORNE ALLERGEN SENSITIZATION IN NASAL POLYPOSIS**

Michel Royer, Christian Olavarria, Constanza Jimena Valdés, Maria-Consuelo Sanhueza-Lazaneo.

Problem Addressed: Nasal polyposis (NP) is a disease that develops through chronic inflammation that leads to tissue oedema and eventually polyps. The pathogenesis of NP is not yet fully understood, but there are clinical, histological, and immunological findings that suggest that allergy has a role in it. The aim of the study was to find out whether patients with nasal polyposis have more airborne allergen sensitization compared with patients with chronic rhinosinusitis (CRS) without polyps. Methods and Measures: A skin prick test (SPT) were performed on 70 patients with nasal polyposis (including 2 patients with NSAID intolerance) and 20 controls with chronic rhinosinusitis. The test included 30 frequent airborne allergens of the metropolitan area of Santiago de Chile that included tree, grass, and weed polens, Dermatophagoides pteronyssinus and farinae, animal danders, cockroach, fether, and 4 common fungal allergens in the SPT (Alternaria, Aspergillus, Cladosporium, Penicillium) plus 3 uncommon evaluated molds (Stemphyllium, Pullularia, Helminthosporium). Chi square test was performed to compare both groups of patients.

AAO-HNSF ANNUAL MEETING  
(THE AMERICAN ACADEMY OF OTOLARYNGOLOGY - HEAD AND NECK SURGERY FOUNDATION)  
TORONTO, CANADA

**FOOD HYPERSENSITIVITY IN NASOSINUSAL POLYPOSIS**

Michel Royer, Christian Olavarria, Constanza Jimena Valdés, Sergio Sanhueza-Cubillos.

Problem Addressed: Nasosinusal polyposis (NP) is a disease in which many proinflammatory factors lead to a common end. Food hypersensitivity is an uncommon condition that has been related to upper airway alterations, but it has being studied only briefly in polyposis. The hypothesis of this work is that there is a higher frequency of food sensitization in patients with NP than in patients with chronic rhinosinusitis (CRS) without polyps. Methods and Measures: Prospective and transversal study conducted from June to December 2005, with two groups of patients: with nasosinusal polyposis and with CRS without polyps (control group). Skin prick test (SPT) was performed, with 25 standardized extracts and the frequency of sensitization between the two groups was compared using Chi Square, considering a p value of equal or less than 0.05 significant.

**RESPIRATORIO**

16<sup>TH</sup> EUROPEAN RESPIRATORY SOCIETY ANNUAL CONGRESS  
MUNICH, GERMANY

**ATYPICAL BACTERIA AND VIRAL ETHIOLOGY OF COMMUNITY-ACQUIRED PNEUMONIA IN CHILE: A PRELIMINARY REPORT.**

M. H. Ruiz, M. A. Martínez, V. R. Luchsinger, E. M. Zunino, L. R. Aguad, P. L. Arce, M. A. Lopez, L. F. Avendano  
[www.ersnet.org/learning\\_resources\\_player/abstract\\_print\\_06/files/186.pdf](http://www.ersnet.org/learning_resources_player/abstract_print_06/files/186.pdf)

16<sup>TH</sup> EUROPEAN RESPIRATORY SOCIETY ANNUAL CONGRESS  
MUNICH, GERMANY

**VENTILATOR-ASSOCIATED PNEUMONIA: RISK FACTORS FOR ANTIMICROBIAL-RESISTANT CAUSATIVE PATHOGENS**

M. H. Ruiz, J. A. Guerrero, C. M. Romero

[www.ersnet.org/learning\\_resources\\_player/abstract\\_print\\_06/search/search.asp?zoom\\_query=P4501&zoom\\_per\\_page=10&zoom\\_and=1](http://www.ersnet.org/learning_resources_player/abstract_print_06/search/search.asp?zoom_query=P4501&zoom_per_page=10&zoom_and=1)

## ABSTRACTS

### REUMATOLOGÍA

EULAR (ANNUAL EUROPEAN CONGRESS OF RHEUMATOLOGY)  
AMSTERDAM, HOLANDA

#### **TUMOR NECROSIS FACTOR-ALPHA LEVELS CORRELATE WITH A BETTER RESPONSE TO ADALIMUMAB IN PATIENTS WITH RHEUMATOID ARTHRITIS**

M. Cuchacovich, L. Soto, M. Gutiérrez, C. Llanos, F. Sabugo, D. Pacheco, M. Alamo, C. Fuentealba, L. Villanueva, H. Gatica, I. Schiattino, L. Salazar, D. Catalán, O. Valenzuela, F. Salazar-Onfray, J. Aguillón.

Objectives: it has been previously reported that circulating tumor necrosis factor-alpha (TNF-alpha) levels increase after a single dose of adalimumab. We studied the correlation between circulating TNF-alpha levels on time and the clinical response to adalimumab treatment in patients with rheumatoid arthritis (RA). Methods: seventy two patients with active RA were included. All received 40 mg of adalimumab subcutaneously every other week. The relationship between clinical response to adalimumab and TNF-alpha levels at weeks 8, 16 and 24 was studied using the Disease Activity Score in 28 joints (DAS28) criteria. Baseline TNF-alpha levels were compared to those achieved at weeks 8, 16 and 24, within DAS28 responder and non responder patients separately. Results: only responder patients showed a statistically significant overall increase of TNF-alpha levels over time ( $p < 0.000001$ ). Differences between baseline levels ( $8.37 \pm 37.38$  pg/mL) and those obtained at 8 weeks ( $22.36 \pm 33.21$  pg/mL), 16 weeks ( $42.09 \pm 21.56$  pg/mL), and 24 weeks ( $31.33 \pm 9.25$  pg/mL) were statistically significant ( $p < 0.000004$  at week 8,  $p < 0.000001$  at week 16 and 24). No statistically significant differences between baseline levels ( $7.02 \pm 31.06$  pg/mL) and those obtained at weeks 8, 16 and 24 were found in non responders. Conclusion: a relationship between DAS28 score of improvement and increased circulating TNF-alpha levels was found in Chilean RA patients treated with adalimumab.

### UROLOGÍA

28TH CONGRESS DE LA SOCIETE INTERNATIONALE D'UROLOGIE  
CAPE TOWN, SUD AFRICA

#### **INTERSTITIAL TEMPERATURE MAPPING DURING PROLIEVE TRANSURETHRAL MICROWAVE TREATMENT: IMAGING REVEALS THERMOTHERAPY TEMPERATURES RESULTING IN TISSUE NECROSIS AND PATENT PROSTATIC URETHRA**

Benjamin T. Larson, David W. Robertson C, Christian Huidobro D, Cristián Acevedo D, David Busel, Joseph Collinsf, Thayne R. Larson.

Objectives: temperature mapping of the prostate during transurethral microwave thermotherapy and imaging of the resultant zones of tissue necrosis have been previously performed using several commercial systems. This study was performed using the Prolieve Thermodilatation System, which simultaneously compresses the prostate with a 46F balloon circulating heated fluid and delivering microwave energy into the prostate. Methods: interstitial temperature mapping during Prolieve treatment was performed on 10 patients with benign prostatic hyperplasia using 24 temperature sensors arrayed throughout the prostate. Voiding cystourethrograms were performed on 3 additional patients treated without temperature mapping to document the patency of the prostatic urethra 1 hour after treatment. Gadolinium-enhanced magnetic resonance imaging studies were performed on all patients 1 week after treatment to determine the extent and pattern of tissue necrosis resulting from transurethral microwave thermotherapy. Results: interstitial temperature mapping found that the heating pattern generated by the Prolieve system created average peak temperatures of  $51.8^{\circ}\text{C}$  an average of 7 mm away from the prostatic urethra. These temperatures were greater near the bladder neck and mid-gland than toward the prostatic apex. Subtherapeutic temperatures were seen adjacent to the urethra, consistent with the viable tissue seen on gadolinium-enhanced magnetic resonance imaging sequences. Magnetic resonance imaging also revealed necrotic zones that were consistent with sustained temperatures greater than  $45^{\circ}\text{C}$ . Voiding cystourethrograms showed widely patent prostatic urethras 1 hour after treatment. Conclusions: transurethral microwave thermotherapy with the Prolieve Thermodilatation System produced sustained therapeutic temperatures that resulted in tissue necrosis while maintaining viable tissue surrounding a temporarily dilated prostatic urethra. Conclusión: presentamos un caso de vulvovaginitis alérgica por acelga, donde el test de parche actuó como provocación alejada del sitio original de la reacción pero a nivel del mismo órgano: la piel.