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Abstracts de trabajos presentados en Congresos Internacionales 2015

UNIDAD PACIENTES CRÍTICOS

36TH INTERNATIONAL SYMPOSIUM ON INTENSIVE CARE AND EMERGENCY MEDICINE- BÉLGICA, BRUSELAS

ACCIDENTAL REMOVAL OF INVASIVE DEVICES IN THE CRITICAL PATIENT INTO THE BED-WASHING. DOES THE PRESENCE OF PROFESSIONAL NURSE MODIFY HIS INCIDENCE?

V. Medo, R. Galvez, J. P. Miranda

Introduction: In the humanized care in the critical patient, the bed-washing is an internalized activity with impact over the risk involved for the accidental removal of invasive devices, and our intensive care unit it is not exempt from this. It was modified the bed-washing protocol, in order to measure the impact of direct supervision and professionalized nursing intervention during the bad-washing in relation with the incidence of accidental removal of invasive devices. Methods: The incidence of accidental removal of invasive devices (orotracheal tube, arterial catheter, central venous access, surgical drainage and indwelling urinary catheter) were reviewed of the intensive care unit (ICU) of the Hospital Clínico Universidad de Chile doing the difference between the totals events of those into the bed-washing in our patients. It was coordinated a continuous medical education to nursing team (emergency and intensive nurses, technicians of nurses and auxiliaries) modifying the bed-washing protocol, including the direct supervision and nursing intervention in critical patients with invasive devices. It was defined two periods for comparison (2003-2005 and 2012-2014). The incidents rates were analyzed for the study period by Kwallis nonparametric test. Significance level of $p < 0.05$. Results: The incidents rates of accidental removal of invasive devices were reviewed of ICU through the database nursing department of our hospital. The period of diagnostic described 76 events of accidental removal of invasive devices; 13 into the bad-washing (rate: 1.18 adjusted events per year). In the evaluation period, 60 events are reported and 7 during the bed-washing (rate: 0.64 adjusted events per year). The rates showed significant differences in the totals events ($p = 0.02$). To compare rates of bed-washing events, a significant difference was observed in relation to the change of protocol ($p = 0.04$). Conclusions: A decrease was evident in the overall incidence of the accidental removal of invasive devices in liaison to continuous medical education ($p = 0.02$). The same is observed on the incidence during the bed-washing, between the period of diagnostic and evaluation of the intervention ($p = 0.04$). The presence of nursing into the bed-washing decreases significantly the rates of the accidental removal of invasive devices. We believe these data validate the implementation of our bed-washing protocol.

DEPARTAMENTO PSIQUIATRÍA Y SALUD MENTAL

22ND INTERNATIONAL ASSOCIATION FOR CHILD AND ADOLESCENT PSYCHIATRY – CANADA, ALBERTA

PROMOTING RESILIENCE IN LATIN AMERICA: MENTAL HEALTH RESEARCH INITIATIVES IN CHILE

Matias Irarrazaval, Muriel Halpern, Beatriz Ortega, Carolina Garcés, Marcela Larraguibel, María Elena Montt, Fernanda Prieto

Symposia Overview: Mental health disorders represent almost one-quarter of the total burden of disease in Latin America and the Caribbean, and between 14 and 20 percent of young people experience one of these disorders at a given point in time. Yet there is a significant imbalance in the nation's efforts to address such disorders. An efficient mental health approach is vital to being able to both provide a timely response and reduce this burden. While research on promotion and prevention of mental disorders is limited, there is evidence showing that preventive interventions and mental health promotion can influence risk and protective factors and reduce the incidence and prevalence of mental disorders. A number of promotion and preventive programs are now available, that should be considered for broad implementation. Interventions before the disorder occurs offer the greatest opportunity to avoid the substantial costs to individuals, families, and society. Despite this evidence, there are currently few initiatives in Latin America responding to this need. Current knowledge is still mainly based on research in high-income countries, although new interesting research projects are emerging in developing countries, such as Chile. This symposia aims to present some initiatives in mental health promotion and prevention in Latin America, that can help to understand the implementation barriers, such as cultural adaptation, mental disorders stigma and the paradigm shift of prevention in mental health.

A PILOT RANDOMIZED CONTROLLED TRIAL OF A PREVENTIVE INTERVENTION PROGRAM FOR DEPRESSION IN CHILEAN FAMILIES

Matías Irarrázaval, Fernanda Prieto, Valeria de Angel

Introduction: One of the most important risk factors for childhood depression is being the child of a depressed parent. The Beardslee Preventive Intervention Program for Depression (PIP) is a family-based approach that works by promoting resilience and increasing positive interactions within the family. Objective: To evaluate the acceptability and feasibility of an adaptation of the PIP in Chilean families. Methods: Study Design: Pilot two-group, single-blind, randomized controlled trial. Families (n=64) with at least one child between 6–12 years of age, and one parent with actual episode or history of depression were recruited. Families received seven sessions delivered at their homes. These include psychoeducational and interpersonal techniques focusing on increased understanding within the family, education about mood disorders, and promotion of resilience-related behaviors and attitudes. Primary Outcome: Acceptability and feasibility of the intervention. Qualitative and quantitative information about parents and the caregivers experience after each session, and after the intervention for further optimization. Secondary outcomes: Effects of family intervention on parental depression, resilience, children's depressive and internalizing symptoms and global family functioning (1 year follow–up). Results: The PIP represents an evidence based intervention for resilience promotion in children. The examination of the qualitative and quantitative results would be useful for the adaptation and scale-up process of the PIP implementation in Chile. Conclusions: It is feasible to implement the PIP intervention in Chilean families. Organizational and human resources barriers were experienced. However, PIP is a strategy that can promote resilience in children of depressed parents. Learning Objectives: To review and discuss: 1) The importance of evidence based mental health prevention programs in Chile and Latin America. 2) The effectiveness of a preventive program for children with depressed parents based on promotion of resilience, positive family functioning and communication.

ACCEPTABILITY AND EFFECTIVENESS OF THE RESILIENCE PROMOTION PROGRAM "VOLANTIN" (KITE): A COMMUNITY MENTAL HEALTH INTERVENTION. PHASE I AND II STUDIES

Marcela Larraguibel, Maria Elena Montt, Olga Fernandez, Consuelo Aldunate, Macarena Pi Davanzo, Muriel Halpern

Introduction: The aim of this study is to describe the acceptability and effectiveness of a resilience promotion program designed for the Chilean School-aged population. Methods: Phase I considered the development of "Volantin", a resilience promotion program adapted for Chilean population. It's acceptability and applicability was tested in a sample of school-aged patients from a community mental health center (N = 10). In phase II, the program was modified and applied to 31 students from a public school, eight and nine years old (41% female). Children were assessed pre and post intervention with the Screen for Child Anxiety Related Emotional Disorders, Children Depression Questionnaire, Piers Harris Self Concept Scale for Children, The School Aged Resilience Scale and the "Volantin" questionnaire. Results: In Phase I, a resilience promotion program using

evidence-based interventions was designed; it was easily applied and well accepted by participants. In phase II, the intervention was modified to 10 sessions for children and 1 parental session. Children participants evidenced significant reduction in anxiety symptoms (F= 14.204; p<0.001). Decrease in depressive symptoms and increased self-esteem were observed, however, these results were not statistically significant. There were no sex differences in the results. Conclusions: "Volantin" program appears to be a promising intervention for school-aged children showing a significant reduction in anxiety symptoms. Given the limitation of this study, a larger randomized controlled-trial is required to test the efficacy of the program and to better assess other variables that showed no significant reduction. Learning Objectives: 1. Describe the Volantin resilience promotion program's objectives and contents 2. Identify acceptability and efficacy outcomes of the Volantin resilience promotion program in a school-aged sample of Chilean children 3. Discuss the importance for evidence based mental health promotion programs for Latino American children.

WORLD CONGRESS ON BRAIN, BEHAVIOR AND EMOTIONS 2016 – BUENOS AIRES, ARGENTINA

APATHY IMPAIRS DAILY LIVING FUNCTIONALITY IN ALZHEIMER DISEASE

Carolina Delgado Derio, Andrea Slachevsky Chonchol, Melissa Martinez Gada, Musa Salech, Fernando Henriquez Chaparro

Introduction: Apathy is the most common neuropsychiatric symptom in Alzheimer disease (AD), and it increases its proportion according to disease severity. However, the influence of apathy on functional impairment has not been studied in AD yet. Objective: Study the influence of apathy on functional impairment in AD patients with different disease severity. Methods: A convenience sample of 93 AD patients was graduated in mild to moderate severity using the clinical dementia rating (CDR) (CDR 0,5 & 1, n=21 & 44); (CDR2 & 3, n= 23 & 5). They were assessed with measures of global cognition (ACE-R total score), executive functions (FAB), episodic memory (FCSRT); behavioral symptoms (neuropsychiatric symptoms questionnaire (NPI-Q)), apathy (apathy evaluation scale, informant version (AES-i)), depression (geriatric depression scale(GDS-15)) and functionality (technology-activities of daily living questionnaire (T-ADLQ)). Lineal regression models were done to assess the better predictors for functional impairment in the global group and in the mild and moderate severity patients separately. Results: Mean age and education were 74±7 and 12±5 years respectively, with 51 (55%) women, without significant differences between CDR groups. Apathy (defined as AES >41) was present in 44 % of AD patients, with increasing proportion in relation with disease severity (CDR 0,5&1=40% CDR2&3=54%) Functional impairment was 35±18 % in the total sample, increasing it proportion according to disease severity (CDR 0,5&1=29% CDR2&3=46%) A regression model that explained 65 % of the variance in functionality (r2=0.65, F=23, p<0.001) was constructed, which included age, education, global cognition, NPI-Q severity, depression and apathy scores as independent variables, and functionality as the dependent variable. Significant predictors of functional impairment were education, NPI-Q, ACE-R and AES-I scores; however, the ACE-R (beta= -0.48, p<0.001) and the AES-I (beta=0.35, p<0.001) were the best predictors of functional impairment. In mild AD patients the same model explained 58% of T-ADQL variance, been apathy (beta=0.363, p=0.002) the best predictor. Conclusions: Apathy alone explained one third of functional impairment in AD patients, been especially important in the mild severity group, it was even more relevant than measures of episodic memory, executive functions or depression. These results remark the importance of apathy evaluation to fully understand AD patient's behavior.

DEPARTAMENTO DE NEUROLOGÍA Y NEUROCIRUGÍA

14TH INTERNATIONAL CONGRESS OF NEUROMUSCULAR DISEASES -TORONTO, CANADA

STATIN-INDUCED NECROTIZING AUTOIMMUNE MYOPATHY. RECURRENCE WITH FIBRATE USE

Mario Fuentealba, Jorge Bevilacqua

We report a 65-year-old woman with medical history of diyslipemia, and no family history of neuromuscular disease or consanguinity. She was treated during one year with atorvastatine 40 mg/day and presented sub acute onset (1 month) of myalgia, fatigability and weakness in the lower limbs, with diffi culties to run and climb stairs. Physical examination demonstrated positive Gowers sign and proximal lower limb weakness (M3+ MRC scale) and proximal upper limb weakness (M4). Electromyography revealed myopathic changes in the lower and upper limbs (small polyphasic and short duration motor units), and resting spontaneous activity (fi brillations, positive sharp waves). The serum creatine kinase (CK) was 10284 IU/Land was the only abnormal fi nding in the routine laboratory assessment. Para-neoplastic and autoimmunity serologic screening including viral hepatitis B and C and VIH were all normal or negative. A left deltoid muscle biopsy was consistent with a necrotizing myopathy with isolated atrophic fi bers and

several necrotic fi bers without infl ammatory infi ltrates, and immunohistochemistry ruled out muscular dystrophy. Oral prednisone was initiated and titrated up to a daily dose of 80 mg in June 2012, resulting in a signifi cant reduction of myalgia and weakness. In December 2012 the physical examination revealed normal muscle strength (M5 MRC) and serum CK levels were normal (116 UI/l). During 2013 the corticotherapy was therefore reduced and additional metrotrexate was initiated with persistence of the clinical improvement. In May 2013 the patient stopped the treatment. In November 2013 she remained asymptomatic with normal serum CK. In March 2014, treatment for dyslipemia was re-initiated with oral gemfi brozyl 600 a day mg). After 2 months she presented recurrence of myopathic symptoms and objetve clinical worsening (myalgia and fatigability) and a signifi cant increase of CK level (6500 UI/L) Oral gemfi brozyl was withdrawn and oral prednisone was reestablished with a rapid disappereance of symptoms and normalization of CK (168 UI/L) after, 1 month of treatment. Two months later, prednisone was tapered and additional teraphy with azathioprine (100 mg a day) was initiated

CALPAINOPATHIES IN CHILE

Jorge A. Bevilacqua, Yves Mathieu, Martin Krahn, Marc Bartoli, Claudia Castiglioni, Karin Kleinsteuber, Jorge Díaz, Francesca Puppo, Mathieu Cerino, Sebastien Courrier, Svetlana Gorokhova, Alejandra Trangulao, Natalia Miranda, Patricio Gonzalez-Hormazabal, María De Los Ángeles Avaria, J. A. Urtizberea, Pablo Caviedes, Lilian Jara, Nicolas Levy

Limb girdle muscular dystrophy 2A (LGMD2A; MIM # 253600) is an autosomal recessive disorder caused by mutations of the CAPN3 gene, which encodes for calpain-3 (CAPN3), a muscle specifi c calcium-activated neutral protease involved in remodelling of the sarcomere. No patients with calpainopathy have been reported hitherto from Chile. Herein, we describe fi ve patients belonging to four unrelated Chilean families harbouring mutations of the CAPN3 gene. Patient 1 is a 26-year-old female that presented with proximal lower limb weakness since she was 8 years old. She had severe bilateral Achilles tendon retraction that determined a tiptoe gait. She showed hyperlordosis and scapular winging. CK levels were elevated 45-fold. Patients 2 and 3 are two sisters born from a consanguineous marriage. The older sister (Patient 2) presented generalized weakness since she was 7 years old. She walked in tiptoes and underwent a left Achilles tenotomy due to a severe retraction. She showed severe proximal pelvic and shoulder girdles weakness, hyperlordosis and mild scapular winging. CK levels were within normal range. Her younger sister (Patient 3) complained of proximal lower limb weakness since she was 25-years old, and showed severe weakness of the pelvic girdle, associated with distal lower limb involvement and bilateral Achilles retraction. The shoulder girdle was less affected, but presented severe scapular winging. Serum CK levels showed a 5-fold increase. Patient 4 is a 21-year old male that presented delayed motor milestones and increased lower limb weakness since he was 12-years old. He showed a marked amyotrophy of the ischiotibial and adductor muscles on the thighs, with relative sparing of the quadriceps, and a severe impairment in the posterior leg compartments. He shows a scapular winging and anterior arm compartment involvement. CK levels were increased by 34-fold. Patient 5 is the only child of a non-consanguineous marriage, with a history of tiptoe walking associated with calf pain after exercise since he was 10-years old. He presented discrete scapular winging, diffuse amyotrophy, mild gastrocnemius hypertrophy and selective distal biceps hypotrophy. Muscle strength showed a predominantly proximal limb girdle weakness, with Achilles and elbow retractions. CK levels showed a 63-fold increase. The muscle biopsies of all patients showed a non-specific dystrophic pattern, with eosinophilic infi ltrates in patient 5. None of the patients showed cardiac or respiratory compromise. Whole body muscle MRI performed to patients 1 to 4 showing a variable degree of fatty replacement, according to disease duration, following the pattern described for LGMD2A. Genetic screening for LGMD mutations was performed in the four patients on a NGS panel of 306 genes involved in neuromuscular diseases, using HaloPlex (Agilent TechnologiesTM) enrichment method and sequenced on the NextSeq500 (IlluminaTM) by HelixioTM (Biopôle Clermont-Limagne, France). The screening allowed the identifi cation of the variant p.Arg788Serfs*14 of the CAPN3 gene (NM_000070.2) for patients 2 and 3; as well as novel mutation p.Gly36Valfs*21 found in a homozy-gous state for Patient 4 and in a compound heterozygous state, associated with variants p.Arg- 748Gln and p.Arg788Serfs*14 for patient 1 and 5 respectively. FONDECYT Grant 1151383.

DESMINOPATHY IN CHILE, TWO FIRST CASES REPORTED

Jorge A. Bevilacqua, Lidia González-Quereda, Ivonne Zamorano, Claudia Castiglioni, Lorena Acevedo, Jorge Díaz, María José Rodríguez, Alejandra Trangulao, Mario Rivera, Pia Gallano

Mutations in the gene encoding for the muscle-specifi c intermediate fi lament desmin on chromosome 2q35, are the underlying cause of variable clinical phenotypes collectively referred as desminopathies. Patients with desminopathy may variably present as myofi brillar myopathy (DRM, MIM#601419), dilated cardiomyopathy (CMDII, MIM#604765) or autosomal dominant or recessive

forms of limb girdle muscular dystrophy (LGMD1E, MIM#602067 and LGMD2R, MIM#615325). The incidence and prevalence of desmin myopathy and/ or cardiomyopathy are unclear. In Chile, no cases with any form of desminopathy have been reported to date. Herein we describe three patients belonging to two unrelated Chilean families harbouring mutations of the desmin (DES) gene. Patient 1 is a 36-year-old man with a history of two years of progressive lower limb weakness. At fi rst examination he presented distal anterior and posterior leg amyotrophy and bilateral "stepagge". In the upper limbs, muscle strength was in normal range. CK plasma level was elevated 6-fold and an electromyogram showed a myopathic pattern with normal nerve con-duction values. A left quadriceps muscle biopsy showed severe dystrophic changes, with normal immunostain for sarcolemmal proteins and no myo- fi rillar aggregates. A whole body MRI revealed a moderate selective involvement of the deltoids in the shoulder girdle, and a severe fatty replacement affecting the anterior and posterior leg compartments and the thighs, with a selective more severe involvement of the semitendinosus muscle. This particular MRI involvement pattern prompted the sequencing of the DESgene (NM_001927.3) allowing the identifi cation of the missense mutation p. Leu370Pro in exon 6 of the DES gene, in heterozygous state. Patient 2 is a 48 years-old sportive man that experienced progressive lower limb weakness that prevented him from running. Examination showed a slim phenotype, with a generalized weakness involving predominantly the right lower limb. He was able to stand up in his toes, but not in the heels. Osteotendinous refl exes were preserved. CK levels were slightly increased (0.5-fold). His threeyears younger brother (Patient 3) had a history of lower limb weakness beginning when he was 40-years old. Impairment started at the anterior leg compartment and later progressed proximally. Electromyography was myogenic; CK levels were increased 8-fold, and a biopsy performed on his left gastrocnemius had been reported as infl ammatory. At time of examination he was 45 years old, he was wheelchair-bound and a pacemaker was indicated due to an arrhythmia. One year later, Patient 2 underwent a quadriceps muscle biopsy that showed non-specifi c myopathic changes. The whole body muscle MRI revealed a selective involvement of the tibialis anterior muscles in the legs, and a selective fatty replacement of the semitendinosus in the thighs. The genetic screening allowed the identifi cation in the two brothers, of the pathogenic variant p.Arg350Pro in exon 6 of the DES gene, in heterozygous state. These patients illustrate the utility of the MRI in myopathies, when clinical and biopsy fi ndings are non-specifi c. In both families the particular pattern of MRI involvement guided the molecular diagnosis. The timely diagnosis of patients with desminopathy is essential to prevent and treat the known potentially fatal cardiac complications. FONDECYT Grant 1151383

DEPARTAMENTO DE OBSTETRICIA Y GINECOLOGÍA

24TH BIENNIAL CONGRESS OF THE EUROPEAN ASSOCIATION FOR CANCER RESEARCH – MANCHESTER, INGLATERRA

THE EXPRESSION OF CYCLOOXIGENASE-2 IS INCREASED BY NERVE GROWTH FACTOR IN EPITHELIAL OVARIAN CANCER

C. Romero, I. Hurtado, M. Garrido, A. Selman, M. Vega

Introduction: The enzyme cyclooxigenase-2 (COX-2) plays an important role in pathological process and specifically in cancer. COX-2 is involved in prostaglandinE2 (PGE2) synthesis and both molecules are involved in inflammatory process. Importantly, elevated expression of COX-2 and PGE2 has been reported in human ovarian cancer and associated with poor prognosis. On the other hand in rat ovary, nerve growth factor (NGF) induces COX-2 expression, therefore as we have found an increase expression of NGF in epithelial ovarian cancer (EOC) and its association with the progression of EOC, the objective of this work was to evaluate the expression of COX-2 in ovarian tissues and also, whether COX-2 expression increases by NGF stimulation in ovarian cell lines. Material and Method: Human ovarian tissues (inactive normal ovaries: IOV, benign ovarian tumors: BenT, borderline ovarian tumors: BorT and epithelial ovarian cancer well differentiated (EOC-I); moderated differentiated (EOC-II) and poorly differentiated (EOC-III) were obtained from 22 patients recruited at the Obstetrics and Gynecology Department, Clinical Hospital University of Chile. Patients signed an informed consent approved by the Ethics Committee of the Institution. COX-2 expression was evaluated by PCR, IHC and WB in ovarian tissues. Ovarian cell lines (HOSE and A2780) were stimulated with different doses of NGF (0, 50, 100 and 150 ng/ml) during 2 h and COX-2 mRNA and protein were evaluated by PCR and WB respectively; besides, PGE2 secretion was measured in culture media by ELISA. Results: The COX-2 protein detected by IHC showed a specific immune-detection in epithelial cells of ovarian tissues and when a semi-quantitative analysis was done it was found a significant increase ($p<0.001$) of COX-2 since BorT to EOCs vs BenT and IOV, COX-2 mRNA and protein detected by PCR and W-B respectively in ovarian tissues were found a significant increase ($p<0.05$) in EOC samples compared with ovarian tumors and IOV samples. When ovarian cell lines were stimulated with different doses of NGF, it was found only in cells A2780 a significant increase ($p<0.01$) of COX-2 transcript and

protein with NGF(100 and 150 ng/ml). Besides, it was found a significant increase ($p<0.05$) in the secretion of PGE2 with NGF (150 ng/ml). Conclusion: These results suggest that NGF is involved not only in proliferation, progression and angiogenesis process as we have found previously, but also in inflammatory process in EOC.

DEPARTAMENTO DE UROLOGÍA

AMERICAN UROLOGICAL ASSOCIATION'S 2016 ANNUAL MEETING - SAN DIEGO, CA, USA

THE PROGNOSTIC IMPACT OF THE NEW ISUP GRADING SYSTEM IN PAPILLARY RENAL CELL CARCINOMA

Rodrigo Ledezma, Ashwin Akki, Arieh Shalhav, Scott Eggener, Gladell Paner, Chicago, IL

Introduction and Objectives. A new grading system for papillary renal cell carcinoma (PRCC) was proposed at the ISUP consensus conference. We aimed to investigate the prognostic predictive value of this grading system in PRCC. Methods. Demographic, clinical and pathological findings were collected on all patients with PRCC undergoing surgery. A single uropathologist (GPP) reviewed each case and assigned grade according to ISUP recommendations. The primary endpoint was relapse-free survival (RFS). The estimated RFS was obtained using the Kaplan-Meier (KM) method and differences between estimates were assessed with the log-Rank test. Cox proportional hazard regression models were used to assess predictors of relapse. Results. Among 118 patients with PRCC 62 (53%) were type 1, 46 (39%) were type 2 and 10 (8%) were mixed (type-1 and type-2). The breakdown of ISUP grades for all PRCC is shown in Table 1. KM estimates showed that patients PRCC type-2 exhibited significantly lower RFS than those with PRCC type-1 (Fig.1; $p=0.03$) and that there was a correlation tendency between higher ISUP grades and lower RFS probability (Fig. 2; $p=0.08$). In univariate analyses, ISUP grading (HR=2.8, 95% CI: 1.13-6.83, $p=0.03$), pT stage higher than 1 (HR=14, 95% CI: 2.8-69, $p=0.001$), node status (HR=135, 95% CI: 13-1350, $p<0.001$) and PRCC type (HR= 4.3, 95% CI: 1.03-18, $p=0.04$) were predictors of recurrence. In multivariable analyses, pT stage higher than 1 (HR= 8.5, 95% CI: 1.4-16, $p=0.02$) and node status (HR=16, 95% CI: 1.2-212, $p=0.03$) were independent predictors of relapse. Conclusions. ISUP grading may be useful in predicting RFS in PRCC. Additional cases and longer follow-up are needed to determine whether the new grading system can improve our management in PRCC.

RIGHT RADICAL NEPHRECTOMY WITH DISSECTION OF THROMBUS IN THE INFERIOR VENA CAVA LEVEL III

Ivan Pinto, Roberto Vilches, Jorge Diaz, Pablo Marchetti, Jaime Altamirano, Camilo Sandoval, Alvaro Vidal, Cristobal Roman, Alfredo Velasco, Manuel Diaz, Ruben Olivares, Jose Miguel Cabello, Renato Cabello, JC De la Maza, E Turner.

Introduction and Objectives. The renal cell carcinoma has a known tendency to spread forming tumor thrombus to the renal vein or inferior vena cava (4-10%) The level that reach the tumor, it's in direct relation with the 5-years survival. Methods. We show a case of a male 58 years old patient with history of diabetes and smoking. The patient complains of hematuria that started ten months ago. In the general lab work, the patient was anemic with a hemoglobin of 8 gr/dL and a serum creatinine of 1.1 mg/mL. The CT-Scan showed an 18 cm right kidney tumor with a thrombus in the inferior vena cava up to the diaphragm (Level III) with no seen metastatic disease or malignant lymphnodes Anterior open nephrectomy was performed, followed by control of inferior vena cava which it's open entirely to perform the thrombectomy. Results. The estimated operative time was 260 minutes, with a bleeding of 1600ml, requiring 3 units of blood during the surgery. No complications was reported. The post-op management was in the ICU for only 24 hours, with a total of length of stay of 5 days. The patient evolved without any complication, showing in the control lab, a serum creatinine of 1.3 mg/dL. To the date there is no evidence of residual disease, clinical nor in the images. Conclusions. The radical nephrectomy it's the standard of care in the, level III inferior vena cava thrombus, in the setting of kidney cancer. It should be done in patients in conditions to have surgery.

PYELOCALYCEAL 3D MODEL TO FACILITATE ACCESS PUNCTURE IN PERCUTANEOUS NEPHROLITHOTOMY

Doron Vantman, Nicolas Stutzin, Alfredo Aliaga, Felipe Aguila, Fernando Marchant

Introduction and Objectives. Percutaneous nephrolithotomy (PCNL) is the preferred treatment for kidney stones > 2 cm and lower pole stones > 1.5 cm. A critical step in PCNL is the safe puncture of the calyx to establish percutaneous access, while avoiding damage to abdominal viscera, pleura or large vessels. The urologist must mentally convert a two dimensional (2D) image obtained by fluoroscopy to a three dimensional (3D) image in order to perform a safe access to the calyx. The aim of this video is to

demonstrate the use of a 3D pyelocalicial model that may facilitate safe punctures in PCNL. Methods. We present a 71 year old male who was referred to our clinic because of 3 months of left renal colic pain. CT urography showed an incomplete left staghorn stone of 33 mm 690UH and an 11 mm 690UH stone in the inferior anterior calyx. We used the patient´s CT urography images to determine pyelocalicial anatomy and establish the size and exact location of the renal stones. We then developed a 3D model of the pyelocalicial system using biodegradable thermoplastic material. This was performed using InVesalius 3.0 and ReplicatorG / MakerWare software and a Bot Maker 3D printer. The printed model was then sterilized for use during the procedure. The model was positioned at a 2 cm distance from the skin to indicate the exact position and orientation of the calyx that we wanted to puncture. Results. We were able to puncture the inferior calyx on our first attempt, resulting in a clear urine output. A safety guide was installed followed by dilation of the tract up to 28Fr. Pneumatic intracorporeal lithotripsy was performed and fragments were extracted using a stone grasper. The patient was discharged on the second postoperative day after undergoing a non contrast CT that showed one residual stone fragment of 4 mm located in the inferior calyx. Conclusions. The pyelocalicial 3D model allowed us to better determine the patient´s anatomy, as well as the exact location of the stone, thereby facilitating the safe puncture of the calyx. Hence, this 3D model could be used to treat complex kidney stones, for patients presenting anatomical abnormalities and by urologists learning how to do PCNL.

DEPARTAMENTO DE MEDICINA

SECCIÓN GASTROENTEROLOGÍA

ANNUAL MEETING OF AMERICAN COLLEGE OF RHEUMATOLOGY – WASHINGTON, USA

TREATMENT WITH DEXAMETHASONE AND MONOPHOSPHORYL LIPID A REMOVES DISEASE-ASSOCIATED TRANSCRIPTIONAL SIGNATURES IN MONOCYTE-DERIVED DENDRITIC CELLS FROM RHEUMATOID ARTHRITIS PATIENTS AND CONFERS THE ABILITY TO MODULATE CD4+ T CELL RESPONSES

Paulina García-González, Oscar Neira, Katina Schinnerling, Alejandro Sepúlveda-Gutiérrez, Jaxaira Maggy, Lorena Hoyos, Rodrigo Morales, Gabriela Ubilla-Olguín, Ahmed Mehdi, Hendrik Nel, Lilian Soto, Bárbara Pesce, María Carmen Molina, Miguel Cuchacovich, Milton Larrondo, Diego Catalán,

Background/Purpose: Tolerogenic dendritic cells (TolDCs) are promising tools for therapy of autoimmune diseases such as rheumatoid arthritis (RA). Here we characterise TolDCs from RA patients modulated with dexamethasone and monophosphoryl lipid A (MPLA) concerning gene expression, phenotype, cytokine profile, migratory properties and T cell-stimulatory capacity to explore their suitability for autologous cellular therapy. Methods: TolDCs were generated from monocytes of 9 RA patients, meeting 2010 ACR/EULAR criteria, and 10 healthy controls, using dexamethasone for tolerization and MPLA for activation (MPLA-tDCs). The phenotype of MPLA-tDCs and their migratory behaviour towards lymphoid chemokines were analysed by flow cytometry and transwell assays. Cytokine secretion of MPLA-tDCs and their ability to activate autologous antigen-specific T cells was determined by flow cytometry and ELISA. Genome-wide transcriptional analysis was performed and differential expression was defined by a false discovery rate of ≤ 0.05. Results: MPLA-tDCs derived from RA patients, exhibited characteristics of semi-mature DCs (Fig 1), such as: reduced expression of costimulatory and coactivation molecules and the capacity to migrate in response to ligands of lymph node homing chemokine receptors CCR7 and CXCR4. These cells displayed an anti-inflammatory cytokine profile inducing hyporesponsiveness and IL-10 secretion of autologous CD4+ T cells specific to synovial antigens. Global transcriptome analysis demonstrated that treatment with dexamethasone and MPLA overcame RA-associated effects on gene expression profiles of monocyte-derived DCs (Fig 2). Figure 1.pdf Figure 1. MPLA-tDCs from rheumatoid arthritis patients and healthy controls display low expression of maturation markers and high TLR2. 160317_Figure 5.pdf Figure 2. Conditioning with dexamethasone and MPLA induces similar transcriptional profiles on moDCs from RA patients and healthy controls, and reverses disease-associated effects on gene expression in MPLA-tDCs derived from monocytes of rheumatoid arthritis patients. Conclusion: Monocyte-derived DCs of RA patients have the potential to develop stable tolerogenic features when modulated with dexamethasone and MPLA, irrespective of disease status. The ability of MPLA-tDCs to impair T cell responses to synovial antigens validates their potential for the treatment of RA. Funding: Fondecyt-Chile 1100102 and 1140553, and Millennium Institute on Immunology and Immunotherapy P09-016-F.