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DEPARTAMENTO DE ANATOMÍA PATOLÓGICA

INTERNATIONAL CONGRESS OF DERMOPATHOLOGY – SANTIAGO DE CHILE.

CD1A IN GRANULOMA ANNULARE: A RESPONSE PATTERN.

Laura Carreño Toro, Ivo Sazunic Yañez, **Claudia Morales Huber**, Verónica Sanhueza Linares.

Langerhans cell or dendritic follicular cell (DFC) is an antigen-presenting cell, identifiable by CD1a staining, and present in the epidermis. Literature review shows few data on the amount and distribution of these cells in classic granuloma annulare (GA). The aim of this study was to analyze Langerhans cells in GA. Eleven cases of GA diagnosed between 2005 and 2009 were obtained from the database of Hospital Clínico Universidad de Chile. The histology was reviewed by 3 pathologists who evaluated inflammatory infiltration, dermal mucin, collagen necrobiosis, and presence of CD1a+ cells both in the epidermis and the dermis. These parameters were quantified as mild, moderate, or intense. All cases had some degree of inflammatory infiltration formed by lymphocytes and histiocytes, and most (9 of 11) had eosinophils. Six cases had increased DFC in the dermis and the epidermis and in some cases, also in the hair follicle. These cases were precisely those associated to a more prominent inflammatory infiltration. We postulate that GA is an evolutionary injury and that in early stages DFC can be increased associated to increased inflammatory infiltration.

PERINEURIOMA OF THE NAIL BED: A CASE REPORT.

Claudia Morales, Daniela Merino, Verónica Catalán, **Laura Carreño**, Paloma Robles, Ximena Wortsman.

Background: Perineuriomas are uncommon tumors composed of perineurial cells with immunoreactivity for vimentin and epithelial membrane antigen. Methods: We report the case of a 44-year-old female with no clinical evidence of neurofibromatosis and a nodular tumor in the nail bed of the third finger. Grossly, the tumor was a well circumscribed, firm nodule (10 3 7 3 5 mm in size). The cut surface was whitish, homogeneous, and solid. Histologically, it was an unencapsulated mass composed of spindle cells with elongated and wavy nuclei; fine granular chromatin; and wavy, slender, strikingly elongated cytoplasmic processes, in a background of collagen. Necrosis and mitotic figures were not observed. Results: Spindle cells stained positive for epithelial membrane antigen and vimentin and were negative for S-100 protein and actin. Conclusion: We report a unique case of perineurioma arising in relation to the finger nail bed and discuss the differential diagnosis of perineurioma.

A CASE REPORT: DIFFUSE LARGE B-CELL LYMPHOMA EXPRESSED AS PATHOLOGIC FRACTURE.

VI Sanhueza, **ME Villanueva**.

Introduction: Bone primary lymphoma is a rare entity with very few cases described, most of them manifested as secondary compromise of an already diagnosed lymphoma. **Patient:** A 71-Year-old woman with a previous history of breast cancer and papillary thyroid cancer, with 2 months right coxal pain and claudication. In physical examination the lower extremity was shortened with inability to extend or to flex the hip. The X-ray and MRI showed a transcervical displaced femur fracture and a focally expansive bone process in the head and neck of the right femur of neoplastic appearance. The patient underwent surgical resection with total arthroplasty of the hip. Grossly, the femoral head had friable and hemorrhagic bone tissue. Microscopically it showed a proliferation of atypical lymphoid cells distributed in sheets, with scant eosinophilic cytoplasm, and hyperchromatic nuclei of cleaved edges. Neoplastic cells were positive for CD45 and CD20, and negative for CD30 and CD15, diagnosing as diffuse large B-cell lymphoma (DLBCL). Four months later, the patient consulted by abdominal pain which began 8 h after a colonoscopy. Abdominal CT scan showed a pneumoperitoneum with free fluids in the abdominal cavity. At the time of surgery an intestinal perforation was found. The histopathological study of the intestine showed an extensive transmural infiltration of the intestinal wall by the same neoplasm described in the femur.

Conclusion: The debut of a DLBCL as pathological fracture is rarely described in literature, so it is important to take into consideration as differential diagnosis in patients over 50 years with chronic hip.

A REPORT OF A SERIES OF FIVE CASES OF SOLID PSEUDO-PAPILLARY TUMOR OF THE PANCREAS.

LE Carreño, G Smok, MA Villarroel, VI Sanhueza.

Introduction: Solid-pseudopapillary tumor (SPT) of the pancreas is a rare entity with a prevalence of 1–2% of tumors of the exocrine pancreas and it is more common in women with a 9:1 ratio. We are reporting five cases of SPT of the pancreas. **Material and Methods:** We retrospectively reviewed all biopsies reports of SPT in our institution, between 1999 and 2009, and we reviewed clinical presentation, histological features, differential diagnosis and follow up.

Results: We have found 333 pancreatic biopsies. Two hundred and twenty nine were tumoral pathology and only five were diagnosed as SPT of pancreas (2.19%). All five cases were women with a median age of 19 years. They were previously healthy and with a history of chronic abdominal pain, one of them had a palpable mass. All patients underwent surgical resection. Macroscopically, the lesions were located in the tail in two cases, in the head in two cases and body in one case. All five tumors were well circumscribed masses with cystic areas, with a mean diameter of 6 cm. Microscopically, the solid areas had nests of small uniform cells surrounding fibrovascular cores. In the predominantly cystic cases, we could only find tumoral cells in the subcapsular areas of the cyst. Two cases had vascular and perineural invasion. The tumor cells were positive for vimentin and α 1-antichymotrypsin and negative for PAS and Alcian-blue stains, and for keratin and endocrine markers. To date, all patients are in good condition, without evidence of relapse or metastasis. **Conclusion:** SPT of the pancreas is a rare entity with a low malignant potential and a favorable outcome after surgical resection, and it requires to be differentiated from other pancreatic tumors of worse prognosis. Nevertheless, these cases demonstrate the need for a strict follow up of these patients.

CASE REPORT: THYROID PAPILLARY CARCINOMA ARISING IN A TYROGLOSSAL DUCT.

VI Sanhueza, **ME Villanueva**.

Introduction: Thyroglossal duct cyst is the most common cause of cervical mass in the pediatric population and a persistent thyroglossal duct is estimated to be found in 7% of the general population. Between 1% and 1.5% of cases may have a carcinoma. We reported a thyroid papillary carcinoma in a thyroglossal duct cyst, without involvement of the thyroid gland. **Patient:** A previously healthy 35 years-old male patient presented with a midline neck mass, painless, not associated with other symptoms that had been present for 5 months. Ultrasound of the lesion showed a cyst of 4.9 • 3.4 • 1.8 cm above the thyroid isthmus. The thyroid gland was normal by palpation and test function. The patient underwent excision by Sistrunk's procedure and the piece was sent to intraoperative biopsy. Grossly, the piece was a biloculated cystic mass with a fibrous inner wall where there was a papillary lesion of 2 cm with calcifications on its surface. The histological study in intraoperative biopsy showed a thyroid papillary carcinoma. There was no capsular invasion and the margins were negative. The neoplastic cells were positive for TTF1, Thyroglobulin, HBME1 and Cytokeratin 19. The patient underwent a total thyroidectomy. The histopathological examination of the excised thyroid gland revealed normal thyroid tissue with no evidence of cancer formation. **Conclusion:** Papillary carcinoma developed in remnant of thyroid gland in a thyroglossal duct cyst without involvement of the thyroid gland is a rare entity, however, clinicians, radiologists, and pathologists should consider it when evaluating a cystic mass of the midline neck. Still is controversial to perform a total thyroidectomy to this finding.

INTESTINAL ENDOMETRIOSIS: CLINICAL EXPERIENCE AND REVIEW OF THE LITERATURE.

LE Carreño, G Smok, MA Villarroel, VI Sanhueza.

Introduction: Six to ten percent of women in fertile age have some form of endometriosis, and the gastrointestinal involvement has been reported in 3–37% of cases. The mean age is 33 years. **Material and Methods:** We retrospectively reviewed all biopsies reports of endometriosis in our institution, between 2005 and 2009, and we reviewed histology of those who had intestinal involvement. **Results:** Four hundred and nineteen biopsies were found with diagnosis of endometriosis, 39 with intestinal involvement (9.3%). All, except one, cases were diagnosed in resection specimen. The median age was 37.4 years. Forty-one percent had large bowel involvement, 31% involvement of the appendix, 15% with the small bowel and the rest had more than one intestinal segment involved. The form of presentation was: appendicitis in 11/39, 12/39 with the diagnosis of endometriosis, 4/39 with the diagnosis of strictures or bowel obstruction, and two patients were diagnosed as cecal tumor. The depth of the intestinal involvement in 32% of cases was mainly muscular layer, 21% only the serosa, 18% periintestinal fat, and one case had transmural involvement, reaching the luminal surface of the mucosa also called polypoid endometriosis, who was diagnosed by endoscopic biopsy. **Conclusion:** Endometriosis is an prevalent entity in women in fertile age, and can involve the intestinal tract extensively. In fact, clinicians and pathologists must be aware of this condition and it must include endometriosis as differential diagnosis in fertile aged women with nonspecific intestinal symptoms, in women with recurrent pain, often associated with menstrual cycles, or even when the cause of bowel obstruction is not identified.

LUNG INVOLVEMENT FOR HODGKINS LYMPHOMA MASQUERADING AS LUNG NEOPLASM: PRESENTATION OF TWO CASES.

LE Carreño, C Fernandez, VI Sanhueza, G Cardemil, J Salguero, JC Diaz.

Introduction: When the involvement by Hodgkin lymphoma (HL) is predominantly lung, diagnosis may be difficult and simulate a lung cancer. We reported two cases of HL with predominant lung involvement and presumptive diagnosis of lung cancer with the purpose of document the clinical presentation and imagenological and histological features of this entity. **Material and Methods:** We review the clinical, imaging and histological features of two cases diagnosed as Hodgkin lymphoma in lung in our institution, between the years 2005 and 2010. **Results:** Both cases were women, one previously healthy of 39 years and one of 87 years, with a history of Porphyria, hypothyroidism, and insulin-resistance. Both consulted for malaise, asthenia and adinamia associated with night sweating, loss of weight and fever of several weeks. One of them presented productive cough and dispea. In one of the cases, the thoracic CT showed a lung mass in the upper third of the left lung with small hilar lymphnodes, and it was diagnosed as lung cancer. In the other case, thoracic CT showed multiple bilateral lung nodules and mediastinal lymphnodes and it was diagnosed as probably lymphoma. Histology of both cases showed bronchocentric process of granulomatous features with necrotic areas and scattered Hodgkins cells and mummified cells surrounded by non neoplastic mature lymphocytes. Neoplastic cells were negative for CD45, CD3, CD20, keratin and positive for CD15, CD30, MUM1 and Fascin. **Conclusion:** The initial involvement of lung parenchyma by Hodgkin lymphoma is difficult to diagnose, nevertheless, clinical presentation of these two cases, images and similarities in the histological pattern give us important elements to early diagnosis with the purpose of avoid the spread of the disease and provide adequate treatment.

PRIMARY UNDIFFERENTIATED EMBRYONAL SARCOMA OF THE LIVER: A REPORT OF TWO RARE CASES.

LE Carreño, VI Sanhueza.

Introduction: Primary undifferentiated embryonal sarcoma (HUS) of the liver is a rare but aggressive tumor of the liver occurring most frequently in the first two decades of life, although a few cases have been reported in adults. We report two cases diagnosed in our institution in this year, with the purpose of contributing to the knowledge of these uncommon neoplasms. **Patients:** We reviewed the clinical, histological and immunohistochemical features of two cases recently diagnosed as HUS. **Results:** Both patients were previously healthy women. One of them, is 17-year-old and she consulted by increasing volume and pain in right hypochondrium. A computerized tomography (CT) scan showed a multiloculated cystic mass that occupied the right hepatic lobe first diagnosed as giant hydatid cyst and underwent surgical resection. The other patient, of 39 years, was derived from another hospital to perform surgery of a liver tumor diagnosed previously as HUS. Grossly, both tumors were large solid and cystic masses, that included areas of necrosis with fibrous internal septations delineating mixoid areas. Histologically both tumors are predominantly composed of a mixture of highly atypical spindle-shaped and giant cells, in an extensively myxoid matrix, with hemorrhagic and necrotic areas. Some cells had eosinophilic hyaline globules in the cytoplasm that were positive for periodic acid-Schiff (PAS) stain. Both tumors were negative for keratin, S100, CD34, AFP and were positive for vimentin. One of them was positive for desmin, but negative for myogenin. **Conclusion:** The prognosis of these tumors is poor, but recent evidence has shown that long-term survival is possible after a complete surgical resection, so these cases require complementary treatment and a strict follow up to support it.

DEPARTAMENTO DE CARDIOLOGÍA

WORLD CONGRESS OF CARDIOLOGY – BEIJING, CHINA.

SECULAR TRENDS OF ATRIAL FIBRILLATION AS A CONTRIBUTING CAUSE OF DEATH IN CHILE.

Mario Ortiz, René Asenjo, Raimundo Morris, Mauricio Cereceda.

Introduction and Objectives: There is little data on the impact of atrial fibrillation (AF) on death (D) in the developing world. We determined secular trends in age and gender specific D rates attributable to AF from 1998 to 2006 in Chile, a country with a life expectancy similar to that of the developed countries. Methods: Data were based on D certificates and were obtained from Statistic National institute, an agency of Chilean government that captures health outcomes for the entire country. AF-related D are those for which the contributing causes of D listed by a physician is classified as code I 48 according to international Classification of Disease, Tenth Revision. Results: Death rates per 100.000 population.

Table.

Death Rate Age group (yrs)	1998	2000	2002	2004	2006
40–49	0,3	0,2	0,3	0,2	0,2
50–59	0,6	0,4	0,8	1,0	1,0
60–69	3,8	4,5	4,5	5,6	6,5
70–79	14,8	17,3	21,5	26,8	31,2
± 80	57,8	60,6	90,5	118,8	148,7
Gender					
Male	1,5	1,8	2,3	2,7	3,7
Female	2,2	2,1	3,1	4,1	4,6
Total	1,9	2,0	2,7	3,4	4,1

Conclusion: 1) This study represent the first evaluation of AF attributable D in Chile. 2) Our data suggest that from 1998 to 2006, there was a 116% increase in the age-specific D rate attributable to AF in Chile. 3) This results suggest that the impact of AF on mortality in the developing world is also increasing.

HIGH SINGLE ORAL DOSE OF AMIODARONE VERSUS PLACEBO: EFFECTS ON THE RATE OF POSTOPERATIVE ARRHYTHMIAS FOLLOWING CORONARY SURGERY AND CORRELATION WITH BLOOD DRUG CONCENTRATIONS.

Mario Ortiz, Mauricio Gonzalez, Eduardo Alvarez, Iván Saavedra, Leonardo Gaete, René Asenjo, Raimundo Morris, Mauricio Cereceda.

Introduction: Although oral Amiodarone (A) has proven to be effective for the prophylaxis of postoperative (PO) arrhythmias after coronary surgery (CS), dosing schedules currently in use are not easy to implement. Purpose: To evaluate the prophylactic potential of a high single oral dose of A on PO arrhythmias following CS. Methods: a) Prospective, randomized, double blind and placebo-controlled study including 98 patients (P). b) 45 patients received placebo and 43 P were given A in a single oral dose of 30 mg/kg in divided doses over the 24 hours prior to surgery. c) The occurrence of arrhythmias over the 96 PO hours, documented through Holter recordings, was compared between both study groups. d) Blood A concentrations (BC) over the study period were measured with HPLC. e) Statistical analysis used Chi-square Test. Results: 36% (16/45) of patients in the placebo group had postoperative arrhythmias (sustained supra/ventricular tachyarrhythmias, frequent supra/ventricular extrasystolia) and 16% (7/43) presented arrhythmias in the A group ($p < 0,05$). Adverse events (bradyarrhythmias/hypotension/ low cardiac output syndrome) were observed in 20% of patients in the placebo group and 35% in the A group (p NS). Amiodarone BC (μ /ml) at 10h, 12h (during extracorporeal circulation), 24h, 48h, 72h and 96h after drug administration were $2,3 \pm 1,4$; $1,4 \pm 0,6$; $1,2 \pm 0,6$; $0,6 \pm 0,3$; $0,5 \pm 0,2$ and $0,4 \pm 0,1$ respectively. Conclusions: 1) The present results show that a single oral dose of A has a prophylactic effect on postoperative arrhythmias in CC, with adverse events similar to placebo. 2) Because Amiodarone BC at 72h reaches the limit below the therapeutic range, a second dose at 48h might optimize such simplified prophylactic dosing scheme.

TRANSVENOUS DEVICE INFECTION: CLINICAL EXPERIENCE USING A LOCAL GENTAMICIN SOLUTION.

René Asenjo González, Raimundo Morris, Mauricio Cereceda, Rodrigo Montagna, Mario Ortiz, Viviana Avalos, Patricia Morales, Loreto Sore, Cristian Mondaca.

Introduction: Infection related to permanent transvenous cardiac device is a serious, high-cost, potentially life-threatening complication. The incidence of infection after endocardial device implant varies from 0.5 to 12% in different series. Most operators prescribe a systemic antibiotic at the time of implantation, however there are not convincing evidence about the efficacy to avoid device infection. The most common mechanism of infection is local contamination of the wound during the implant. Infection starts at the pocket and there extends to the leads. We think that the use of local antibiotics during the implant, would be probably reduce the incidence of device infection. Objective: To report the incidence of device related infections with local use of a gentamicin solution, during the first device implantation. Methods: A first device was implanted in 1887 patients (pts) since March 1994 to August 2009. Men 63%, age 67.7±16.6 years old. The device was a single chamber pacemaker (PM) in 374 pts, dual chamber (DDD) in 1211, ICD in 135 pts, a PM for resynchronization therapy (CRT)104, and CRT+ICD in 63 pts. The procedures were undertaken in the EP Lab. Cefazolin 1 gr. IV was prescribed within 1 hour preceding incision and then 3 or 4 gr. for 24 hours. Pts were shaved immediately before the operation, and the skin was washed with a povidone aqueous 10% or clorexidine solution and then the skin was painted with the same solution. The PM pocket is developed in the prepectoralis fascia before the venous access is made and is washed with a solution of gentamicin 80 mg plus 100 cc of saline solution, and then a gauze soaked with the same solution is kept within the pocket during the operation. In addition, during the operation we frequently wash the wound with the same solution. Clinical and device control was made at the Pacemaker Clinic at 1, 4 and 8 weeks after implantation; then 4 to 6 interval months control. Results: During follow-up of 1 month to 15 years only 4 pts (0.22%) had a device related infection, 3 local infection and 1 endocarditis. Device infection was in 2 pts with a DDD PM, 1 with an ICD and 1 with a CRT. Incidence of infection was higher in CRT than PM (p: 0.0009). Conclusion: In this experience the incidente of device infection is lower tan reported in others series with a first implantation. Local use of a gentamicin solution in the device pocket during the operation, added to systemic antibiotic, probably reduces the incidence of PM infection. Controlled trials are needed to evaluate if this method is truly useful to prevent device related infection and if gentamicin solution alone is also effective.

CONGRESS OF EUROPEAN SOCIETY OF CARDIOLOGY – ESTOCOLMO, SUECIA.

HEART FAILURE PATIENTS WITH DIABETES MELLITUS ARE MORE VULNERABLE TO THE DELETERIOUS EFFECT OF ENVIRONMENTAL POLLUTION.

P. Castro, J. Vera, G. Wellenius, H. Verdejo, L. Cifuentes, **L. Sepulveda**, J.L. Vukasovic, S. Llevaneras.

Recent studies had reported an association between environmental pollution due to fine particulate material (PM25) and the risk of hospital admission in heart failure (HF) patients. Whether this susceptibility is universal or associated to underlying comorbidities is still controversial. Aim: To evaluate the effect of comorbidities in the association between PM25 exposure and hospital admissions due to decompensate HF. Method: Prospective trial. Chronic HF patients admitted due to acutely decompensate HF to ten hospitals in Santiago, Chile between 2002-2008 were included. Meteorological and air pollution data were obtained from a centralized surveillance network. To test the association between comorbidities, pollution exposure and hospitalizations, a time-stratified case-crossover model controlled by dew point and temperature was used, assuming a lag between exposure to effect of 0-10 days. Results: 529 patients were included. Age was 73.8±6 years old. Etiology of HF was hypertensive in 38.6% and ischemic in 25% of the cases. Hypertension was present in 77.4% of the patients and 31.6% were diabetic. Risk for hospitalization due to decompensate HF for each 10 µg/m³ PM25 increase raised to 22.7% (p=0.03) on the fourth day after exposure reaching 44.8% on the tenth day after air pollution exposure in patients younger than 75 years. Patients with diabetes mellitus (DM) were significantly more vulnerable to the effect of pollution (hospitalization risk increase of 18.8%, p=0.04 on the eighth day after exposure. Hypertension was also associated with an increase in susceptibility to fine particulate air pollutants, with an increase in hospitalization risk of 22.8% on the fifth day after exposure. Conclusion: Our results suggest that HF patients with DM are especially susceptible to the effect of PM25 pollution.

DEPARTAMENTO DE CIRUGÍA

INTERNATIONAL FEDERATION FOR THE SURGERY OF OBESITY AND METABOLIC DISORDERS – LOS ANGELES, USA.

METABOLIC OUTCOMES OF ROUX-EN-Y GASTRIC BYPASS, IN TYPE 2 DIABETES PATIENTS WITH BODY MASS INDEX OVER 35. LONG TERM FOLLOW UP.

Enrique Lanzarini, Attila Csendes, Hanns Lembach, Juan Carlos Molina, Italo Braghetto, Luis Gutiérrez.

Introduction: In severe obese patients, Roux-en-Y Gastric Bypass (RYGBP) produces a specific effect on type 2 diabetes mellitus (T2DM), demonstrating early improvements in glycemic control. Objective: Analyze the metabolic and glycemic control parameters before and after RYGBP in T2DM patients with a Body Mass Index (BMI) over 35. Material and Methods: Revision of clinical files of 89 patients with T2DM and BMI 35 who underwent RYGBP between 2000 and 2008. Controls were performed preoperatively and at 3, 6, 12, 36, 60 and 72 months. The t-student test was used to analyze data. Results: The mean evolution time of T2DM was 4,8 years. The average follow up was 58,6 months, with a maximum of 107. BMI decreased from 43,9 to 30,6 kg/m² at 6 months and without significant changes during the follow up. Mean fasting blood glucose levels were normalized at 6 months, decreasing from 141 to 88 mg/dl, and remained stable during follow up. The tendency of mean glycosylated hemoglobin levels was similar, descending from 7,2 to 5,3 mg/dl at 5 years. The mean insulin level and HOMA score decreased significantly over time, from 28,3 and 9,9 in the preoperative control, to 6 and 1,5 at 3 years, respectively. Levels of total Cholesterol, LDL and triglycerids decreased significantly, but HDL measurements stayed without changes during the follow up. Conclusions: RYGBP is an effective therapy which achieves stable long term results controlling glycemic and metabolic parameters in patients with T2DM and a BMI over 35.

METABOLIC OUTCOMES OF SLEEVE GASTRECTOMY IN PATIENTS WITH IMPAIRED GLUCOSE METABOLISM.

Enrique Lanzarini, Attila Csendes, Juan Carlos Molina, Hanns Lembach, Italo Braghetto, Luis Gutiérrez.

Introduction: Sleeve Gastrectomy (SG) has been accepted as a definitive procedure for weight control in obese patients. Furthermore, comorbidities including Type 2 Diabetes (T2DM) and Insulin resistance (IR) have also shown improvement. Objective: Assess the effect of SG in metabolic and glycemic control parameters in patients with impaired glucose metabolism. Material and methods: Revision of clinical files of 21 patients with T2DM or IR who underwent SG between 2005 and 2009. The t-student test was used to analyze data. Results: There were 12 patients in T2DM group and 9 in IR group, and average preoperative BMI was 35.8 and 33.6 respectively. The average evolution time of T2DM was 3.3 years and 75% used oral diabetes medication. Preoperative blood glucose level (BGL) was 150,6mg/dl for T2DM, and 99,2 for IR. Average postoperative follow-up was 22.2 months. During first year of Follow-up, T2DM patients decreased their BMI to 28.2, and BGL descended to 88 mg/dl, both remaining stable afterwards. In the IR Group, BMI fell to 23.4 and BGL to 76 mg/dl during the first year. In T2DM patients, Glycosylated Hemoglobin decreased from 7,2% to 4,1% during the first year. In IR patients HOMA score descended from 3,98 to 0,23. Cholesterol levels didn't show significant modification, whereas triglycerides decreased from 219 to 150 mg/dl in the T2DM group and from 164 to 88 mg/dl in the IR group. Conclusion: SG is effective in controlling weight, and significantly improves glucose metabolism in patients with T2DM and IR, but is ineffective improving lipids levels.

DEPARTAMENTO DE DERMATOLOGÍA

INTERNATIONAL CONGRESS OF DERMOPATHOLOGY – SANTIAGO DE CHILE.

ERYTHEMA INDURATUM OF BAZIN, UNUSUAL PRESENTATION ON SOLES.

Valenzuela Fernando, Calderón Perla, Carreño Laura, Hidalgo Marco, Carmi Alejandra, Schrag Beatriz, Correa Francisca.

We present a 17-years-old woman with a 2-month history of small, tender, and painful erythematoviolaceous nodules on the lower legs (anterior and posterior aspects) and soles. She received prednisone 30 mg/kg for 6 weeks as an erythema nodosum treatment, with no improvement. On physical examination, she presented cushingoid appearance and multiple 3–5 cm nodules on the lower extremities including the soles, with an ulcerated serohematic crust on the right ankle. Laboratory tests showed ESR . 60 mL/minute, antistreptolysin O negative and Mantoux test (PPD) of 19 mm. A skin biopsy showed a mixed septal and lobular granulomatous panniculitis with neutrophilic vasculitis. A Mycobacterium tuberculosis polymerase chain reaction was performed and was negative. Urine bacilloscopy was positive (2 of 6 samples), sputum bacilloscopy was negative, and thorax x-ray was normal. Erythema induratum of Bazin was diagnosed, and the patient was sent to pneumologist for complete workup and antituberculous therapy. Presentation on the soles has been rarely reported in the literature of this condition.

GRAFT VERSUS HOST DISEASE AFTER BLOOD TRANSFUSIONS: CASE REPORT.

Andrea Cortes, **Tirza Saavedra, Claudia Morales, Gabriela Strauch.**

Graft versus host disease is one of the major complications of allogenic bone marrow or stem cells transplantation but also can occur by nonirradiated blood products. The chronically late or sclerodermoid cutaneous involvement can affect both skin and mucous membranes, and it is associated to high antinuclear antibody titles. We present the case of a female patient, 56 years old with a diagnosis of scleroderma made in 1992, treated with colchicine, penicillamine, and chloroquine. After using these drugs for 3 years, she developed autoimmune hepatitis and bone marrow suppression that required multiple blood transfusions, associated with bullous cutaneous lesions that affected the trunk, neck, and extremities, evolving to progressive cutaneous atrophy and slurring. After numerous treatments without success (methotrexate and steroids), the lesions progressed month to month. A new skin biopsy is taken, which reports fibrosing dermatitis with superficial and deep perivascular lymphocytic infiltrate, with atrophy of dermal appendages consistent with graft versus host disease in late stage. Laboratory examinations: antinuclear antibody 1/160 nucleolar pattern, native DNA antibody (2), ENA profile (2), IFD (2), and IFI (2). The case is discussed by the lower frequency of presentation.

INTERGLUTEAL MELANOMA. THE IMPORTANCE OF EXHAUSTIVE PHYSICAL EXAMINATION.

Tirza Saavedra, José Gatica, Alejandra Carmi, Claudia Morales.

We present the case of a 30-year-old female with a history of depression. She presented to us with a pruritic black lesion, which increased in size during the last year and was located on the superior intergluteal area. Physical examination revealed a 1.5-cm hyperpigmented black plaque with asymmetrical and irregular outlines. Dermatoscopy showed irregular pigment network with a prominent blue veil at the center. Anti-melanoma antibodies were positive 1/10, and lymphocyte subpopulations were normal. The skin biopsy showed melanoma, 1 mm in thickness, with negative lateral margins at 2 mm and negative lower surgical margin at 4 mm from the lesion. The present case highlights the importance of complete and thorough physical examination in every patient.

NEUTROPHILIC DERMATOSIS SECONDARY TO MYELODYSPLASTIC SYNDROME WITH LEUKEMIA TRANSFORMATION.

Saavedra Tirza, Calderón Perla, Lefimil Juan, Guerrero Silvia, Waissbluth Marlene, Carreño Laura, Morales Claudia.

We present the case of a 55-year-old man with a history of 3 perianal abscesses and peritonsillar phlegmon 3 months ago. At admission, he had a 2-day history of erythematoviolaceous macules on trunk, legs, and right elbow with vesicles in addition on this place and a perianal fistula. He referred 10 kg loss of weight in 3 months with preserved appetite and asthenia. He was found feverish, with severe anemia, leukopenia, and reactive C protein 244. He was started on antibiotic treatment and general management. He was evaluated by a dermatologist who performed a biopsy from the elbow. A myelogram was performed by hematology, which showed a myelodysplastic syndrome with leukemic transformation. The skin biopsy showed a diffuse infiltrate of mature neutrophils and edema in the upper dermis, dilated small blood vessels. After the biopsy, right elbow evolves with ulceration, trunk and legs macules disappeared, and new plaque-like lesions appeared in the left forearm and neck. A new biopsy of the left forearm showed similar findings, but blasts could also be visualized in the dermis. We diagnosed neutrophilic dermatosis secondary to myelodysplastic syndrome with leukemia transformation.

ORAL MALIGNANT MELANOMA IN SITU: A CASE REPORT.

Saavedra Tirza, Carreño Laura, González Carmen Gloria, Luna Andrea.

Oral melanoma is a rare tumor. It presents usually as a pigmented lesion with a rapid growth rate. The lack of treatment protocols and frequent delay in diagnosis makes its prognosis poor. We present the case of a 60-year-old Chilean male, heavy smoker, who presented a pigmented macular lesion of 6 months of evolution on the inner mucosa of the upper lip. On presentation, the clinical diagnosis of melanoma was made and confirmed by histopathology (evaluation of incisional biopsy). Microscopically, the tumor showed histopathologic features consistent with an in situ melanoma. The patient was referred to surgery, to complete wide resection with security margins and has remained disease free since then (last 12 months). Oral mucosal melanoma is rare and due to the rarity, any data on epidemiology, tumor behavior, treatment, follow-up, and survival are mainly based on single case reports. We present the case of an oral melanoma in situ successfully managed with surgery, to share the good outcomes obtained given an early detection and aggressive treatment.

PARANEOPLASTIC DERMATOMYOSITIS DUE TO RENAL CELL CARCINOMA.

Fernando Valenzuela, Marlene Waissbluth, Miguel Espinoza, Gabriela Strauch, Laura Carreño.

The case of a 72-year-old-man with diabetes mellitus is presented. He consulted for a 4-month pruritic erythematoviolaceous macules on the face, neck, and chest unresponsive to antihistaminics or topical corticosteroids. The lesions progressed to heliotrope rash, Gottron sign, nail-fold telangiectases, and erythema on the abdomen and lateral aspects of thighs, together with marked asthenia, anorexia, and 10 kg weight loss. The diagnosis of dermatomyositis as a paraneoplastic phenomenon was suggested and clinical, imaging, and laboratory workup for neoplasia was carried out. Laboratory tests evidenced a hypochromic microcytic anemia, erythrocyte sedimentation rate 120, and CK40 U/L. Images showed multiple mediastinal, perirenal, and suprarenal adenopathies, 2 pulmonary masses, renal tumors, and inferior cava and left renal vein thrombosis. A skin biopsy showed interface vacuolar dermatitis and superficial and mid dermal lymphoplasmacytic infiltrate with mucinosis. A videothoracoscopy biopsy revealed a poorly differentiated carcinoma, staining positive for keratin, vimentin, CD10, and EMA, consistent with metastatic renal cell carcinoma. The diagnosis of paraneoplastic amyopathic dermatomyositis secondary to renal cell carcinoma was confirmed. Perineurioma of the Nail Bed: A Case Report.

DEPARTAMENTO DE MEDICINA

GASTROENTEROLOGÍA

CONGRESS OF AMERICAN ASSOCIATION FOR THE STUDY OF LIVER DISEASES (AASLD) – BOSTON, USA.

PHYLOGENETIC ANALYSIS OF COMPLETE GENOME SEQUENCES OF HEPATITIS B VIRUS GENOTYPE F OF CHILEAN PATIENTS WITH CHRONIC INFECTION.

Mauricio Venegas, Monica V. Alvarado-Mora, Rodrigo A. Villanueva, João R. Pinho, Flair J. Carrilho, Javier Brahm.

Hepatitis B virus (HBV) is estimated to cause chronic infection in more than 350 millions people worldwide and 1 million deaths per year. Sequence analysis of HBV is a useful tool for the management of HBV infected patients, and there are only very few data available about genotypes and drug resistance mutations in the viruses circulating in Chile. Since the HBV genotype F (HBV/F) is the most prevalent in the country, the goal of this study was to obtain HBV full genome sequences from chronic HBV/F infected patients, and to determine their subgenotypes in an effort to correlate these results with the presence of resistance mutations, and clinical data. Twenty-one serum samples of chronic infected patients were subjected to full-length PCR amplification, and both strands of the whole genomes were completely sequenced. Phylogenetic analyses were performed along with reference sequences available from GenBank (n=290). Sequences were aligned using Clustal X software, and edited in the SE-AL software. Bayesian phylogenetic analyses were conducted using Markov Chain Monte Carlo (MCMC) approach for 10 millions generations for obtaining the substitution tree using BEAST v.1.5.3. Value of posterior probability was obtained by Tree Annotator v.1.5.3. All the analyzed Chilean chronic patients were HBV subgenotype F1b carriers and the viral sequences clustered into four different groups, suggesting that different viral strains are circulating within the population. Additionally, we identified primary drug resistance mutations using CodonCode Aligner Software. Only one naïve patient presented primary drug resistance mutation to Lamivudine, Emtricitabine and Clevudine due to the occurrence of V173L, L180M and M204V mutations. In conclusion, this study is the first analysis of HBV complete genome sequences circulating in Chile, and its phylogenetic analysis suggests that HBV/F1b is the most frequently found among people with HBV chronic infection. Furthermore, we determined that several different viral entries into the country are present in the Chilean population. Finally, we have found one patient with drug resistance mutations that did not referred previous treatment

HEMATOLOGÍA

52ND ANNUAL MEETING AMERICAN SOCIETY OF HEMATOLOGY (ASH) - ORLANDO, FLORIDA.

IMPROVEMENT IN VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS IN HOSPITALIZED CANCER PATIENTS WITH A CONTINUING MEDICAL EDUCATIONAL PROGRAM IN A UNIVERSITY HOSPITAL IN SOUTH AMERICA.

Guillermo Conte, Gastón Figueroa, Sandra Aranda, Daniel Araos, Nestor Gonzalez, Carlos Torres, Javier Picarte.

Introduction: Cancer patients have a 4 to 6-fold higher risk of suffering Venous Thromboembolism (VTE), the second cause of death in hospitalized cancer patients. These patients are considered as high risk for VTE by the ACCP guidelines, so the pharmacological prophylaxis is indicated if there is no contraindication. A study carried out at our hospital between 2003

and 2004 showed a low use of thromboprophylaxis in this group of patients. The implementation of diverse strategies may improve this prophylaxis. A continuing medical education program was introduced to medical interns and internal medicine residents between 2005 and 2009 with this purpose. The objective of this study was to evaluate changes in the use of thromboprophylaxis in cancer patients hospitalized between 2008 and 2009. Methods: A six-month seminar program was implemented for medical interns and internal medicine residents enhanced by daily visits to the patient rooms by the medical staff who supervised the correct use of thromboprophylaxis. The results were based on a retrospective analysis of clinical data of medical and surgical patients diagnosed with cancer hospitalized at the University of Chile Clinical Hospital in the 2003–2004 period (Group A) and in the period 2008–2009 (Group B) Exclusion Criteria at Admission: VTE diagnosis, use of anticoagulants, thromboprophylaxis contraindication and age <18 years. Conclusion: The risk for VTE is very high in hospitalized cancer patients and is associated with an increased risk of recurrent thrombosis. Several international medical organizations (NCCN, ASCO, ESMO, ASH) call for improving thromboprophylaxis in this high-risk population. The introduction of an active medical educational program addressed to medical interns and internal medicine residents resulted in a significant increase in the proportion of hospitalized cancer patients who received appropriate prophylaxis in accordance with the ACCP guidelines from 65.8% at the start of the study to 86.4% ($p < 0.001$) after 24 months.

INMUNOLOGÍA

AIDS 2010 - VIENA, AUSTRIA

LOW RATES OF FIRST LINE HAART FAILURE IN A RESOURCE-LIMITED COUNTRY (RLC) ASSOCIATED TO AGE, GENDER, BASELINE CONDITIONS AND THIRD DRUG. RESULTS FROM THE CHILEAN AIDS COHORT (CHIAC).

C. Beltran, P. Zitko, P. Gamba, M. Contreras, E. Pereira, **A. Afani**, M. Wolff, **W. Acevedo**, Chilean AIDS Cohort Study Group.

Background: Rates of first HAART virological suppression are increasing to near 80%. DHHS guidelines outline risk factors for failure in developed countries. First regimen failure remains an important problem, especially in RLC where viral load (VL) and resistance testing are often unavailable. Aims of this study are to determine the rate and risk factors for first failure in a RLC, as compared to those reported in developed countries. Methods: 5,102/ 7,007 patients on treatment nationwide initiated first HAART during prospective follow up by the ChiAC. Failure defined as at least 2 consecutive VL > 80 copies/ml with no further undetectability on same HAART. Age, CD4, clinical diagnosis and VL at baseline, gender and third drug analyzed for association to failure through unadjusted and adjusted univariate analysis, and multivariate analysis; determining OR and CI95 for each variable. Sensitivity analysis performed using different failure cut points (80, 400, 1,000 copies/ml). Results: 3,439/ 5,102 patients on first HAART had ≥ 2 VL on treatment, being included in the study (21,396 VL tests); 2,820 (80.0%) achieved viral suppression, 619 (20.0%) met failure criteria, 26.2% of them with low level VL (< 1,000 copies/ml). Significant risk factors for failure in multivariate analysis: female (OR 1.35 CI 1.03-1.73), age (OR 0.97 CI 0.96-0.98 p/year old), VL (OR 1.01 CI 1.00-1.01 p/100,000 copies/ml), third drug (OR 3.87 for 3 NRTI, 2.98 for PI, 1.85 for nevirapine); B and C CDC stage significant only for secondary failure (OR 1.72 and 1.67). Except for gender, all factors were consistent for different cut points. Baseline CD4 not associated to failure. Conclusions: In this RLC population-based study, we found a very high rate of first HAART virological success. Female gender, younger age, high VL and B-C stage at baseline, and third drug different from efavirenz were all significantly associated to failure.

MEDICINA NUCLEAR

57TH ANNUAL MEETING OF SOCIETY OF NUCLEAR MEDICINE (SNM) - SALT LAKE CITY, USA.

PREVALENCE OF ISCHEMIC HEART DISEASE (IHD) IN ASYMPTOMATIC PATIENTS WITH DIABETES MELLITUS (DM) IN DEVELOPING COUNTRIES.

Raffaele Giubbini, Maurizio Dondi, Fernando Mut, **Teresa Massardo**, Lara Lusa and Ami Iskandrian.

Objectives: The diagnostic values of exercise ECG and MPI in asymptomatic pts with type-2 DM are still debated. Little is known about prevalence of silent IHD in DM pts in developing countries. Aim of this IAEA coordinated clinical trial is the evaluation of IHD prevalence in DM pts and in controls (C) by MPI and exercise(EX) ECG. Methods: 468 pts (300 DM and 168 C) enrolled at 14 sites in Asia, Africa, and Latin America were analyzed. The inclusion criteria were: DM duration >5 yrs, age>40 yrs, near-normal baseline ECG, no history of CAD. The C group had to have 1 major risk factor(s) but no DM. All pts had EX testing with gated-SPECT MPI. ECGs and MPI were interpreted blindly in 2 core labs. The images were scored for SSS, SRS and SDS using a 17-segment model. Results: There were 61% men in DM and 54% in C ($P=ns$). Mean ages were 60.2 and 56.8($P<.001$). Hypertension, hyperlipidemia, active smoking and family history of CAD were present in DM and C in 72%

vs.67% (P=ns),58% vs.67%(P=ns)81% vs.71% (P=.03) and 31% vs.47% (P=.001) respectively. No differences were observed in DM and C in the use of statins, beta-blockers, ACEI and aspirin. By ECG, IHD was present in 15% of DM and 12% of C(P=NS). The SSS, SDS and SRS >3 was more in DM than C, 24% vs.13% (P=.007), 20% vs.11% (P=.018) and 6% vs.2% (P=.094). Rest LV ejection fraction was 66.5% in DM and 70.4% in C (P=.001). There were no differences in ischemia in the 3 continents: 26% in Africa, 19% in Asia and 19% in Latin America (P=ns). Conclusions: This first international study shows more ischemia by MPI than by ECG and more ischemia in DM than in C pts.

UNIDAD DEL DOLOR

JOINT INTERNATIONAL CONGRESS OF ILTS (INTERNATIONAL LIVER TRANSPLANTATION SOCIETY) – HONG KONG, CHINA.

TACROLIMUS VERSUS CYCLOSPORINE IN ELDERLY LIVER TRANSPLANTATION PATIENTS.

Juan Pablo Miranda, Danny Oksenberg, Jaime Poniachik, Jose Ibarra, Rodrigo Rimasa, Erwin Quijada, Angelica Borquez, Jaime Castillo, Gonzalo Cardemil, Jorge Rojas, Juan Carlos Diaz.

Background: Almost every liver transplant recipient takes either cyclosporin or tacrolimus to prevent rejection of the graft. There are no evaluated immunosuppression to prevent rejection in liver transplant recipients in elderly patients. Aim: To compare the survival from a prospective trial that compared Tacrolimus and cyclosporine microemulsion for primary immunosuppression in elderly patients. Method: Descriptive study, from 2002-2010, in elderly patients. 143 liver transplantation from cadaveric donors were performed in the Hospital Clínico Universidad de Chile. 32 OLT patients were elderly (Age >60 years). Twenty six patients received CsA-me or generic tacrolimus (T-Inmun®) as primary immunosuppression. We show a survival analysis of these patient. Results: The sample comprised 36 liver transplants in 32 patients, average age 63.9±2.3 (60-68) years, 23 male (63.9%) and 13 female (36.1%). Patients were analyzed into 2 groups: Cyclosporine n=19 (C) and Tacrolimus n=16 (T). Average age C=63.8±2.4 (61-68) and T=63.9±2.2 (60-66) years, p=ns. Transplant etiology: 25.7% (9) alcoholic hepatic cirrhosis; 20.0 % (7) NASH; 20.0 % (7) hepatic cirrhosis HCV; 34.3 (13) other. Group C received a dose of 15 mg/k/day, with dose adjustments based on C2 plasma levels between 800-1200 ng/ml. Group T received a dose of 0,05 to 0,15 mg/kg/day and adjusting doses in order to maintain T trough plasma levels between 10-15 ng/ml, over the three initial post-transplant months. Each group also received steroids with or without mycophenolate mofetil. No differences were seen between the drugs with respect to acute cellular rejection and adverse events (renal failure, lymphoproliferative disorder, diabetes mellitus). The Survival of C were 82.9%, 62.2% and 38.6% at 1, 3 and 5 years, respectively, on T were 86.5%, 79.3% and 79.3% respectively (p<0.006). Conclusions: After liver transplantation in elderly tacrolimus patients had longer survival than cyclosporine patients.

TACROLIMUS VERSUS CYCLOSPORINE AS PRIMARY IMMUNOSUPPRESSION AFTER LIVER TRANSPLANTATION IN CHILEAN PATIENTS.

Miranda Juan Pablo, Jaime Poniachik, Danny Oksenberg, Jose Ibarra, Erwin Quijada, Rodrigo Rimasa, Angelica Borquez, Jaime Castillo, Gonzalo Cardemil, Juan Carlos Diaz.

Background: Cyclosporine (CsA-me) or tacrolimus (Tac) are widely used as primary immunosuppression to prevent rejection in liver transplant recipients, but with different immunosuppression potency and some differences in their secondary effect profile. In Chilean liver transplantation patients, the implications of these differences are not assessed. Aim: We evaluated results and survival from a prospective trial that compared Tac and CsA-me for primary immunosuppression. Methods: From 2002 to 2010, 143 liver transplantation from cadaveric donors were performed at the Hospital Clínico Universidad de Chile. One hundred thirty one (91.1%) received CsA-me or generic tacrolimus (T-Inmun®) as primary immunosuppression. We evaluated clinical variables and the survival of these patients. Statistical analysis was performed with Stata 10.0. Results: Eighty one (60.0%) received CsA-me and fifty four (39.3%) received Tac. Median age was 52.9(21-68) years, not differences for sex. Causes for transplantation in CsA-me group was HCV 30.0%; alcoholic cirrhosis 20.0%; NASH 12.5%; cryptogenic cirrhosis 8.8%; other 28.7% and in the Tac group: NASH 24.5%; alcoholic cirrhosis 15.1%; cryptogenic cirrhosis 13.2%; autoimmune hepatitis 11.3% and other 35.8% (p=ns by group). Patient Survival analysis of group CsA-me were 83.4%, 67.7% and 56.7% at 1,3 and 5 year, respectively, on group Tac were 93.9%, 91.6% and 86.5% respectively (log rank p<0.0001). The infections (16.0% v/s 1.8%) and moderate and severe graft rejections (17.2% v/s 11.1%) were more frequent at CsA-me group (p<0.02). No Differences in relation to acute kidney failure and de-novo insulin-requiring diabetes mellitus were seen. Conclusion: Tac has superior to CsA-me in improving survival (patient and graft) and preventing acute rejection in liver transplantation. Tacrolimus seems to be a more appropriate drug to be used for primary immunosuppression in Chilean liver transplantation.

13TH WORD CONGRESS ON PAIN – MONTREAL, CANADÁ.

DOSAGE OF PREGABALIN IN NEUROPATHIC PAIN MANAGEMENT IN CHILEAN PATIENTS.

J. P. Miranda, J. Jaque, L. Jimenez, D. Monje, F. Hormazabal, N. Abusada, R. Orellana, P. Quezada, M. Puente, J. Retamales, D. Muñoz, E. Muñoz, G. Cavada.

Pregabalin has demonstrated efficacy for a variety of neuropathic pain such as painful diabetic peripheral neuropathy, postherpetic neuralgia and fibromyalgia, but no study to date has evaluated the dosage for managing neuropathic pain in Chile. The aim was to determine the dose of Pregabalin to have to be used to manage neuropathic pain in outpatients undergoing treatment at the Pain and Palliative Care Unit of Universidad de Chile Hospital. Methods: A descriptive prospective study of outpatients of the Pain and Palliative Care Unit diagnosed with neuropathic pain was conducted within a period of time starting March 2008 through December 2009. Drug treatment was performed on the WHO analgesic ladder. Subsequently, demographic, clinical, and drug therapy variables were analyzed, defining as analgesia efficiency the reduction of pain intensity according to the visual analogue scale and a reduced DN4 questionnaire score. Analysis was made using t-student and Wilcoxon tests for paired data in statistical program Stata 10.0[®], with a significant p-value <0,05. Results: A total 165 patients were studied within the term mentioned above. From this total, 104 (63%) patients complied with a definitive neuropathic pain criterion and full records, which were the final sample of this study. No significant differences per gender were found among the 75 (72.1%) female patients whose average age was 54.4±14.9 (19-92) and the 29 (27.9%) male patients whose average age was 50.9±15.3 (27 - 81). The main diagnoses were fibromyalgia (20%) and low back pain (16%), but no differences per gender were found. The final doses determined after using pregabalin was 103.1±74.3 (CI 95%: 86.7 to 119.3). In connection with the instruments applied, the intensity of pain scored according to VAS scale and DN4 scale were significantly reduced (p<0.0001) in -4.8±2.6 (CI 95%: -5.3 to -4.3) and -5.0±2.5 (CI 95%: -5.5 to -4.5), respectively. Conclusions: Pregabalin doses used were lower than that reported in other studies. Pregabalin along with analgesia based on the WHO analgesic ladder model offers us a new and effective tool to relieve pain in patients diagnosed with neuropathic pain. This is the reason gabapentinoids should be regarded as first line drugs to help patients with neuropathic pain.

DEPARTAMENTO DE NEUROLOGÍA Y NEUROCIRUGÍA

62ND ANNUAL CONGRESS AMERICAN ACADEMY OF NEUROLOGY - TORONTO, CANADÁ.

HOSPITAL-BASED PREVALENCE AND INCIDENCE OF MULTIPLE SCLEROSIS IN CHILE.

Violeta Díaz, Juan F. Antinao, Raimundo A. Quezada, Jorge Barahona.

OBJECTIVE: To study the prevalence and incidence of Multiple Sclerosis (EM) with hospitalization rate for regions in the country. To study the correlation of hospitalization rates with latitude and Ultra Violet radiation. **BACKGROUND:** The prevalence of MS in South America fluctuate between 1.48 to 20.9 per 100.000 inhabitants. The Latitude of Chile ranges between 17 to 56 degrees south. Several papers has been found relation of EM rates and latitude. **DESIGN/METHODS:** Descriptive and corelational study of the national register of EM hospitalization from 2001 to 2006 including the ICD-10 G35 code. Standardised EM rate to national cense 2002, at age and sex and world population were calculated. New patient for each years were considered for calculating the incidence rate. We used two sample proportion calculations to asses statical differences for regional incidence and prevalence rates and 95% confidential intervals and Pearson correlation for latitude and UV and rates. **RESULTS:** There were 6857 hospitalizations during six years, 939 individuals; 63% female. The ratio M/F:1/2 The means age was 39 years (SD 12.03). Means hospitalization days were 3 (SD 7.3). The national hospitalization prevalence rates per year 2001 to 2006 were 3.80 (95% CI 3.49-4.11); 6.10 (5.71-6.49); 7.10 (6.69-7.51); 8.40 (7.95-8.85); 8.00 (7.57-8.43); 8.80 (8.35-9.25) respectively. The Incidence hospitalization rate per year 2002 to 2006 were 1.01 (95% CI 0.85-1.17); 0.99 (0.84-1.15); 0.94(0.79-1.09); 0.84 (0.70-0.98);0.85 (0.71-0.99) respectively. The regional EM rates showed statistically significance variation in relation to national rate for each years. We didn't find statistically significance seasonal variation in the hospitalization and incidence rates. The UV and latitude correlation was not significant with hospitalization and incidence rates except for XII regions. **CONCLUSIONS/ RELEVANCE:** Chile presents moderate risk of EM. There was no correlation with latitude and UV The most southern region has a significant higher rates of EM. Supported by: National Health Ministry of Chile, MINSAL. Category - MS and Related Diseases - Clinical Science.

DEPARTAMENTO DE PSIQUIATRÍA

57TH ANNUAL MEETING AMERICAN ACADEMY OF CHILD & ADOLESCENT PSYCHIATRY – NUEVA YORK, USA.

DEPRESSIVE SYMPTOMATOLOGY AND PROBLEM SOLVING SKILLS IN CHILEAN ADOLESCENTS.

Rosemarie Fritsch, Sergio Barroilhet, Viviana Guajardo, **Paul Vöhringer**, **Vania Martínez**, **Maria G. Rojas**, Ricardo Araya.

OBJECTIVE: To describe the association between depressive symptomatology and problem solving skills among Chilean adolescents attending to public secondary schools in Santiago, Chile. **BACKGROUND:** Mental disorders, such as depression and anxiety, are common and disabling throughout the world (1). These disorders affect people of all ages. Several studies of adult population have shown that the prevalence of these disorders is high in many developing countries, especially in Latin America (2). There have been only a handful of surveys in younger populations in the developing world (1) and the results also show higher prevalence than in more developed countries. Some studies have shown improvement with Cognitive Behavior Therapy (CBT) and Interpersonal Therapy (IPT) interventions for depressed adolescents, These investigations have used strategies to improve ability to solve problems, which have impacted favorably by decreasing depressive symptoms in these adolescents (3). **HYPOTHESIS:** In this sample of adolescents, the severity of depressive symptoms and the ability to solve problems are associated. **METHODS:** As part of a randomized clinical trial to improve the mental health of this population, we carried out a baseline assessment of a representative sample of adolescents attending the 9th grade at Public Schools in Santiago. Depressive symptoms were assessed with the Beck Depression Inventory II (BDI II) and problem solving skills with the Rationale Problem Solving Subscale of the Social Problem Solving Inventory (SPSI-RPS). This research has the approval of the local Ethics Committee. **RESULTS:** We interviewed 2508 adolescents (44,4% girls and 55,6% boys) aged 14,5 (CI95%: 14,5-14,6) years. **CONCLUSIONS:** This sample of Chilean adolescents attending public schools had high rates of depressive symptomatology which was associated with reportedly less effective problem-solving strategies and techniques. We postulate that an intervention to improve mental health should include the training of social problem solving skills .

EFFECT OF SHORT-TERM ABSTINENCE ON COCAINE-INDUCED ENDOTHELIAL DYSFUNCTION AND PLATELET ACTIVATION.

Jaime Pereira, Claudia G Saez, **Julio Pallavicini**, Paulina Olivares, Natalia Moreno, Manuel Cabrerías, **Teresa Massardo**, and Diego Mezzano.

Background. Cocaine abuse is associated with an increased risk of cardiac and cerebrovascular events, such as myocardial infarction, sudden cardiac death, and ischemic stroke. The underlying mechanisms leading to these complications are not fully understood although intravascular thrombus formation and accelerated atherosclerosis are prominent findings. We have previously shown (Pereira et al. *J Thromb Haemost* 2009; 7[suppl 2]: 232a) that chronic cocaine use is associated with markers of endothelial dysfunction and platelet activation in subjects studied after recent consumption. It has been suggested that many of the adverse effects of cocaine on the vessel wall are due to its acute effects related to the sympathomimetic properties of the drug. However, from a pathogenic standpoint, we hypothesized that important pathologic consequences, such as early onset atherosclerosis and regional brain perfusion defects, are not solely explained by the acute vasomotor actions of cocaine. **Objectives.** The main aim of this work was to investigate the effect of short-term abstinence on markers of endothelial injury and platelet activation in chronic cocaine consumers. **Patients and methods.** We studied 23 cocaine dependent individuals (aged 19-52 years mean age 30 years) who met DSM-IV criteria for cocaine dependence, seeking treatment for cocaine abuse and 25 healthy controls (aged 20-49 years, mean age 31 years). Samples were obtained at admission within 72 hours of drug exposure and after 4 weeks of strict, controlled abstinence in a rehabilitation clinic. Endothelial cell damage was assessed by enumerating circulating endothelial cells (CECs) and plasma levels of soluble markers: soluble intercellular adhesion molecule (sICAM); monocyte chemoattractant protein (MCP-1), von Willebrand factor (VWF) and high-sensitivity C reactive protein (hs-CRP). Plasma levels of soluble CD40L (sCD40L), NAP-2 and RANTES were determined to demonstrate platelet activation in vivo. **Results.** Markers of endothelial cell damage/activation and platelet activation, were significantly higher in cocaine dependents individuals after recent consumption (baseline) as compared with the controls. **Conclusions.** Our results demonstrate that cocaine use is associated to endothelial dysfunction and platelet activation which are prominent findings after recent consumption. Evidence of endothelial cell activation/damage is still present after 4 weeks of strict and controlled abstinence when markers of platelet activation returned to their baseline levels. Taken together, these observations suggest that cocaine induced-endothelial cell damage is maintained independent of the acute effect of the drug on the blood vessels. The persistence of this condition may play a role in long-term ischemic complications associated with cocaine abuse such as early onset atherosclerosis and regional brain perfusion defects. Further studies on the mechanisms underlying cocaine-induced endothelial dysfunction might provide novel strategies to improve endothelial function as part of the treatment in recently abstinent cocaine addicts.

UNIDAD PACIENTES CRÍTICOS

23RD ANNUAL CONGRESS EUROPEAN SOCIETY OF INTENSIVE CARE MEDICINE – BARCELONA, ESPAÑA.

BURNOUT SYNDROME IN CRITICAL CARE UNIT OF THE UNIVERSITY HOSPITAL.

Luis R. Galvez; Macarena Gompertz; Antonia Valenzuela; Eduardo A. Tobar; Carlos Romero; Osvaldo Llanos; Rodrigo A. Cornejo.

Introduction: Burnout Syndrome (BOS) is typified in three dimensions: emotional, Exhaustion (EE), depersonalization (DP) and the lack of personal achievement (PA). It is a frequent psychopathological syndrome in medical and nursery personal with a prolonged occupational stress. Hypothesis: Objectives for this study were to determinate the frequency and the risk factors associated with BOS. Secondly, we searched several variables as civil status, age, sex, work seniority as potential risk factors. Methods: Inclusion criteria to work in Critical Care Unit (CCU) the Hospital Clínico Universidad de Chile (HCUCH). This unit included 2 subunits: intensive care unit (ICU), Middle care unit (MCU). The MBI[®] Instrument was applied between April to July of 2009. All staff of CCU were asked to response the instrument. As previously reported, BOS was Defined with high EE, high DP and low PA. Risk of BOS was anything of the three dimensions positive for BOS. We gave information on specific objectives and the schedule of a future intervention programme. For analysis, comparisons were made based on student t test, chi – square test with Yates corrections or Fisher exact test as corresponded. For all tests we used confidence interval 95% with $p < 0.05$. Results: A total of 111 MBI[®] tests that included all sub-units in CCU. This is a 56% of all personal working in the CCU. BOS was found in 8.26% of cases. Women (75%), unmarried (75%), with an average of age 31.9 y.o. (23 to 47 y.o.) and with a work seniority younger than 5 years (50%). EE is high (31.5%), for nurse and paramedical personals. DP was 22.5% And 31.5% to middle level, for nurse and medical doctor, and low PA in 34% for paramedical personal, with longer work seniority (more than 10 years). Risk factors were female gender, unmarried status, childless, middle aged (23 to 47 y.o.) and recent start in the job (stay younger than 5 years). Conclusions: BOS incidence in our CCU was within previous observations in Critical care Unit (8.26%). BOS was most frequently observed in unmarried people, without Children in general. It is important to note that AE presentation was high (24.8%), as Well as depersonalization (13.2%). Personal achievement was lower around a quarter of the sample. The incidence of BOS risk in our CU was 47.9%.

DYNAMICS OF RECOVERY OF PERIPHERAL AND METABOLIC PERFUSION PARAMETERS DURING SEVERE SEPSIS RESUSCITATION: A PRELIMINARY REPORT.

G. Hernandez, A. Bruhn, **C. Romero**, S. Bravo, C. Pedreros, J. Ramirez, C. Godoy, M.A. Diaz, A. Bujes, E. Kattan, J.L. Navarro, **R. Neira**, M. Rovegno.

INTRODUCTION. Perfusion assessment can be a very difficult task in patients with severe sepsis. Metabolic parameters such as lactate and ScvO₂ may be misleading or non-interpretible. On the other hand, peripheral perfusion can be severely compromised in this setting, which has been correlated with hyperlactatemia and organ dysfunctions. However, no study has addressed the temporal profile of changes in peripheral perfusion during severe sepsis. Our aim was to evaluate the dynamics of recovery of metabolic and peripheral perfusion parameters during severe sepsis resuscitation. METHODS. We included hypotensive septic patients undergoing fluid resuscitation or requiring vasopressors after ICU admission. Several perfusion parameters including lactate, ScvO₂, venous-arterial pCO₂ gradient (? v-a pCO₂), capillary refill time (CRT) and central vs. toe temp gradient (? t° C-T), were assessed at baseline and then at 2, 6 and 24 hrs of resuscitation. All patients were managed with a common protocol including additional fluid challenges, norepinephrine (NE), mechanical ventilation (MV) or dobutamine according to specific indications. The percentage of patients with normal values for every parameter at each time-point was assessed. Changes along time were analyzed by Fisher exact test. RESULTS. We enrolled 25 patients (mean age 61.4; SOFA 9, APACHE 18, NE 68%, MV 52%, ICU mortality 20%), of whom 24 survived the study period. More than 50% of patients exhibited abnormal values for each parameter at baseline. Although all parameters tended to normalize at 24 hrs, only CRT exhibited significant changes at 6 hrs (figure). CONCLUSIONS. Both peripheral and metabolic perfusion parameters exhibited a similar recovery trend in successfully resuscitated septic patients, but CRT normalized earlier than the other parameters. Future studies should address the role of dynamic peripheral perfusion assessment in severe sepsis.

EFFECTS OF EXTENDED PRONE POSITION VENTILATION IN ARDS SECONDARY TO PNEUMONIA DUE TO THE NOVEL A(H1N1) INFLUENZA.

R. Cornejo, A. Zamorano, G. Diaz, **C. Romero**, **E. Tobar**, **O. Llanos**, **L.R. Galvez**, L. Fabrega, W. Neira, D. Arellano, C. Repetto, D. Aedo, R. Gonzalez, D. Goñi.

INTRODUCTION. In the context of pandemic influenza A(H1N1), Chile achieved one of the highest rates of cases per habitant worldwide. Our Hospital, a national reference center, received 34 severe patients. Considering the preliminary data that alerted about the high incidence of severe hypoxemia and frequent necessity of rescue therapies in these patients, we wanted

to evaluate the impact of extended prone-position ventilation (PPV) on respiratory function in patients with severe acute respiratory distress syndrome (ARDS) secondary to pneumonia due to the novel influenza A(H1N1), and compare it with the results obtained in patients with other ARDS causes. **METHODS.** Prospective interventional study in a mixed medical-surgical ICU in a tertiary care university Hospital. Consecutive patients with severe ARDS, previously unresponsive to positive end-expiratory pressure (PEEP) adjustment, were treated with extended PPV for 48 hours or until the oxygenation index (OI) was < 10. If this therapy was insufficient, extracorporeal membrane oxygenation (ECMO) was early implemented according our ARDS protocol. We measured changes in oxygenation parameters before PPV, every 6 h during PPV, and 2 and 12 h after. The effects of PPV in this population were compared with the obtained in other ARDS causes. **RESULTS.** 10 patients with severe ARDS (age 42 ± 12 years, 3 females, APACHE II 16 ± 6 , SOFA 8 ± 3) receiving volume-controlled ventilation (tidal volumes of 6 ml/kg of predicted body weight) required PPV. The time between onset of mechanical ventilation and PPV was 26 ± 27 hours. The first time on PPV was 82 ± 49 straight hours (three patients required two periods on PPV). None of the patients experienced life-threatening complications or hemodynamic instability during the procedure, four patients developed grade II pressure ulcers and one patient grade III. The patients showed a statistically significant improvement in PaO₂/FiO₂ (79 ± 23 vs. 249 ± 67 , $p < 0,0001$) and OI (28 ± 12 vs. 8 ± 2 , $p < 0,0001$) and reduction of PaCO₂ (45 ± 16 vs. 39 ± 6 , $p < 0,0001$) with PPV, and did not worse upon returning to the supine position. Two patients were subjected to ECMO, one of them did not receive PPV and the other only did for two hours. In-hospital mortality was 30%, and remained without changes at six months follow-up. This behavior did not differ with the obtained for our team in other ARDS populations. **CONCLUSIONS.** The results obtained suggest that extended PPV as rescue therapy might be useful in refractory hypoxemic patients with severe ARDS secondary to the novel A (H1N1) influenza. This approach improved oxygenation parameters. Moreover, it is feasible and relatively safe, when it is carried out by a trained staff and within an established protocol. Although the limited number of patients does not allow major conclusions to be drawn, we believe that this strategy could be used to face severe cases of A (H1N1) influenza.

INVASIVE PROCEDURES IN A CRITICAL CARE UNIT. SURVEILLANCE AND MONITORING OF MEDICAL INDICATION IN A TERTIARY UNIVERSITY HOSPITAL. LOCAL IMPROVEMENT PROGRAM IN NOSOCOMIAL INFECTIONS. APRIL TO DECEMBER 2009.

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INTRODUCTION. In the Critical Care Unit (CCU) of the Hospital Clínico Universidad de Chile (HCUCH), the problem of nosocomial infections is an important goal inside the Local Quality Programme. Protocols and standards have emerged aimed at maximizing surveillance, monitoring and control of risk factors for nosocomial infections. These strategies generate the need to monitor our CCU baseline. Compliance with medical indication of certain invasive procedures such as central venous access (CVC) and urinary catheter stay (CUP), are factors to evaluate in these protocols, to reduce the risks of infection associated. **OBJECTIVES.** Assessing compliance with medical indications for invasive procedures type CUP and CVC, based on local recommendations of the Committee of Nosocomial Infections (CIH) of HCUCH and international Society of Health Epidemiology of America and the Infectious Diseases Society of America (SHEA / IDSA). **METHODS.** We monitored two specific procedures required by the guidelines of CIH - HCUCH, indications of CVC and CUP. The guidelines are based on standard recommendations of the Manual of CIH - HCUCH and international recommendations SHEA / IDSA. The period was from April to December 2009. It took the total UPC which has 12 beds in the Intensive Care Unit (ICU), 15 beds in the Medical Middle - Care Unit (MMCU) and 28 beds in the Surgical Middle - Care Unit (SMCU). The implementation of guidelines was conducted by medical resident during one month, with shift monthly the medical resident. The data collected were managed in database, with expression in medians, and percentages. **RESULTS.** In our CCU had 4340 admissions in period April-December 2009. The ICU admissions were 484, 867 were in MMCU and 2989 in SMCU. We applied a total of 1853 supervision's patterns, covering the CCU in its entirety. 53.4% (990 patterns) was invaded at the time of supervision. 699 patterns were performed in the ICU (37.7%), 640 patterns in MMCU (34.5%), and 739 patterns in SMCU (39.9%). The distribution pattern of CVC was 954 (51.5%) and 899 patterns CUP (48.5%). In 19.2% of CUP patterns (92 patterns) and 10.4% of CVC guidelines (53 guidelines), showed no medical indication of invasion at the time of supervision. Indications not mentioned by CIH, monitoring in oncological abdominal surgery (33%), spinal trauma surgery (25%) and skin protection in the management of pressure ulcers (18%) were the most representative CUP. The CVC for renal replacement therapy (50%) were not included in local recommendations. **CONCLUSIONS.** There was a 19.2% of CUP guidelines and 10.4% of CVC guidelines in the period monitored, without a medical indication of invasion, which implies an important responsibility of the treating team. The supervision of medical indications for invasive procedures is an important process under surveillance and especially prevention of intrahospitalary infections.