

Trabajos enviados a Congresos y/o publicados en revistas Internacionales por profesionales del Hospital Clínico Universidad de Chile durante el año 2004.

Anatomía Patológica

Gastroenterol Hepatol. 2004 Aug-Sep;27(7):408-10.
Chronic hepatitis C and celiac sprue: an infrequent association

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Celiac sprue (CS) has been described in association with hepatitis C virus (HCV) as another immunologic manifestation of this infectious disease. We report 2 patients, a 42-year-old woman and a 59-year-old man, with chronic HCV hepatitis. Upper digestive endoscopy and duodenal biopsy were performed to investigate diverse symptoms. The results of histological analysis and serological study were compatible with CS. The association between both diseases, including immunological aspects and the implications of anti-HCV treatment, is discussed.

Pediatr Dermatol. 2004 Mar-Apr;21(2):154-9.
Infantile systemic hyalinosis or juvenile hyaline fibromatosis?

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Infantile systemic hyalinosis and juvenile hyaline fibromatosis are presumably autosomal recessive inherited diseases of unknown origin in which accumulation of an amorphous, hyaline material occurs in the skin and other organs. Both disorders may show clinical overlapping, suggesting that they might represent different variants of the same di-

sease spectrum. We describe a 6-year-old boy with such overlap. Salient features included papular skin lesions on his face and neck, gingival hyperplasia, perianal nodules, large subcutaneous tumors on the scalp, hyperpigmented plaques over the metacarpophalangeal joints and malleoli, limited joint movement, diffuse osteopenia, short stature, and persistent diarrhea. Histopathologic and ultrastructural studies confirmed the presence of hyalin material in the dermis. The term systemic hyalinosis involves both conditions and should be preferred until a clear distinction can be made between them.

Clin Sci (Lond). 2004 Mar;106(3):261-8.
Oxidative stress-related parameters in the liver of non-alcoholic fatty liver disease patients.

Videla LA, Rodrigo R, Orellana M, Fernandez V, Tapia G, Quinones L, Varela N, Contreras J, Lazarte R, Csendes A, Rojas J, Maluenda F, Burdiles P, Diaz JC, Smok G, Thielemann L, Poniachik J.
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Oxidative stress is implicated in the pathogenesis of non-alcoholic fatty liver disease (NAFLD). In the present study, hepatic and plasma oxidative stress-related parameters were measured and correlated with clinical and histological findings in 31 NAFLD patients showing increased body mass index. Liver protein carbonyl content was enhanced by 403% in patients with steatosis (n=15) compared with

control values (n=12), whereas glutathione content, superoxide dismutase (SOD) activity and the ferric reducing ability of plasma (FRAP) were decreased by 57%, 48% and 21% (P<0.05) respectively. No changes in microsomal p-nitrophenol hydroxylation and the total content of cytochrome P450 (CYP) or CYP2E1 were observed. Patients with steatohepatitis (n=16) exhibited protein carbonyl content comparable with that of controls, whereas glutathione content, SOD and catalase activities were decreased by 27%, 64% and 48% (P<0.05). In addition, FRAP values in patients with steatohepatitis were reduced by 33% and 15% (p<0.05) when compared with controls and patients with steatosis respectively, whereas p-nitrophenol hydroxylation (52%) and CYP2E1 content (142%) were significantly increased (p<0.05) compare with controls. It is concluded that oxidative stress is developed in the liver of NAFLD patients with steatohepatitis, which is associated with CYP2E1 induction. Substantial protein oxidation is followed by proteolysis of the modified proteins, which may explain the co-existence of a diminished antioxidant capacity and protein oxidation in the liver of patients with steatohepatitis.

Anestesiología

Is it necessary to use ondansetron during a total intravenous anesthesia with propofol to reduce the incidence of postoperative nausea and vomiting (PONV)?

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Background and Goal of study: Anesthesia based in inhalation agents present a high incidence of postoperative nausea and vomiting (PONV). The use of propofol decreases this problem. Our goal was to estimate the incidence of PONV in patients with propofol-remifantamil TIVA and to study if it is necessary the use of ondansetron for the prevention of PONV after TIVA.

Materials and Methods: 71 patients ASA I-II scheduled for lumbar or cervical discectomy were included in this double blinded prospective study. Patients were randomly assigned ondansetron 4mg iv was used as rescue antiemetic agent. Both groups received propofol TCI combined with remifentanil infusion. PONV were recorder at different times (60 min, 4, 8, 12 and 24 hours) after the end of surgery. Statistical analysis: chi-square test.

Result and Discussion: 37 patients received ondansetron and 34 placebo. 58 patients had a lumbar discectomy and 13 cervical discectomy. Mean (SD) propofol consume was 1114 mg (575.28) and for remifentanil 3.38 mg (1.64). Nausea incidence was 9.8% (7 patients) and vomiting was 5.6% (4 patients). There were no significant differences between groups at different times.

Table 1

Times	60 min	4 hrs	8 hrs	12 hrs	24 hrs
Ondansetron	0	0	0	0	3n – 1v
Placebo	0	2n	1v	0	2n – 2v

Conclusion (s): The incidence of PONV after lumbar and cervical discectomy with propofol anesthesia is low. Our study suggest there is no need to use ondansetron if general anesthesia is maintained with propofol – remifentanil TIVA.

Reference

1. Tamer MR. Efficacy, dose-response and safety of ondansetron in prevention of portoperative nausea and vomiting. *Anesthesiology* 1997;87: 1277-1289.

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Combined spinal-epidural analgesia compared with epidural analgesia with low doses in labour

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Background: Combined spinal-epidural analgesia (CSE) is associated with shorter lengths of labor. Classical epidural analgesia (EA) was usually associated with prolonged labor. We compared the effects in the rate of cervical dilatation and the time of delivery between CSE and epidural analgesia with low doses in pregnant patients in labor and drugs total used.

Materials and Methods: 80 nulliparous and 60 multiparous women were randomly assigned to CSE or EA with low doses at Hospital Padre Hurtado labor room. Onset of labor was spontaneous and analgesia was performed when cervical dilatation was < 6 cm. CSE group received: bupivacaine 1.5 mg and fentanyl 25 mcg intrathecal with a ESPOCAN® SET BRAUN®, EA group received: bupivacaine 10 mg, fentanyl 100 mcg and ephedrine 25 mcg. The analgesia was maintained with bolus of bupivacaine 0.25% (20 mg) when was indicated.

Results: Demographics characteristics and labor management were comparable between the groups. The outcomes were analyzed separately nulliparous and multiparous. There was not significant variation in rate of dilatation, length of labor, and way of delivery between the groups. The total doses of local anaesthesia and opiates used were minor in the CSE group.

Conclusions: We conclude that CSE and EA low doses are similar in the progression of labor, however, CSE is best analgesia in labor patient because the onset of analgesia is faster, the total drugs used is minor, technique is easy and safe than the EA low doses.

Cardiovascular

American College Cardiology, March 3, 2004 Prosthetic Valve Endocarditis: Report of 214 cases from the intracardiac Echocardiography prospective cohort study.

Corey R, Hoen B, Miro JM, Ianussi D, Selton-Suty Ch, Wang A, et al.

Background: Prosthetic valve Endocarditis (PVE) in an emerging but incompletely understood complication of medical progress.

Aim of Study: To determine the current clinical characteristics and outcome of patients with PVE utilizing the international Collaboration on Endocarditis (ICE) Prospective Cohort Study (ICE-PCS).

Methods: From January 2000 through November 2002, 1024 cases of definite IE were prospectively enrolled by 34 centers representing 15 countries using a standard case report form, Of these, 214 (20.8%) had PVE.

Results: The median age of PVE patients was 59.5 years (IQR 47.0-73.0); 69.2% were male. The interval from valve surgery to onset of PVE was < 60 days in 21 patients and > 365 years days in 69 patients (median = 447.5 days, IQR 104-2329 days). The most common organism were Staphylococcus aureus (25.8%), coagulase negative staphylococcus (18.3%), and viridans group streptococci (11.7%). PVE was demonstrated by echocardiography in 146 patients (92.4%): vegetations (70.6%), abscess (32%), dehiscence (15%), and fistula (1%). Surgery during the acute episode was common (52.3%) with valve regurgitation (54.5%) and abscess (42.0%) the most frequent indications. Embolic events (stroke 13.5% other emboli 13.2%) hearth failure (31.2%), intracardiac abscess (32%), and death (23.8%) were frequent complications of PVE.

Conclusions: In this large, multicenter, international cohort, S. aureus was the most common cause of PVE. Although over 50% of patients went to surgery, mortality remained high. Furter work is need to evaluate the emerging importante of S. aureus as a cause of PVE, to identify risk factors for death, and to define the impact of early surgery on survival.

Rev Esp Cardiol. 2004 Aug; 57(8): 725-31.

Neurohormonal activation in congestive heart failure: does it normalize after heart transplantation?

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Introduction and objective: In patients with congestive heart failure, neurohormonal activation plays an important role in disease progression and prognosis. The aim of this study was to document the evolution of neurohormonal activation after heart transplantation. **PATIENTS AND METHOD:** Thirty-seven patients on the waiting list for heart transplantation were included in the study. Plasma levels of angiotensin II, aldosterone, endothelin, atrial natriuretic peptide and adrenomedullin were measured before heart transplantation and again 1, 4, 9 and 12 months afterwards. Plasma levels of norepinephrine and renin were measured before and 1 month after heart transplantation.

Results: The levels of angiotensin II, norepinephrine and renin showed a nonsignificant trend towards reduction. The levels of aldosterone were unchanged, and an increase in endothelin levels was seen 9 and 12 months after transplantation. Plasma levels of atrial natriuretic peptide and adrenomedullin were significantly lower 1, 4, 9 and 12 months after heart transplantation compared to pretransplant levels.

Conclusions: During the first several months after heart transplantation there were no significant reductions in plasma levels of angiotensin II, aldosterone and endothelin, and there were significant reductions soon after surgery in peptides with a predominantly vasodilator effect (atrial natriuretic peptide and adrenomedullin). This unfavorable neurohormonal profile may contribute to the development of posttransplant complications such as edema, arterial hypertension and endothelial dysfunction.

Cirugía

Int Surg. 2004 Oct-Dec;89(4):227-35.

Anatomical deformities after laparoscopic antireflux surgery.

Braghetto I, Csendes A, Korn O, Burdiles P, Valladares H, Cortes C, Debandi A.
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Laparoscopic Nissen, Nissen-Rossetti, cardial calibration with gastropexy, and other modifications are the procedures commonly used for surgical treatment of gastroesophageal reflux disease. Postoperative failures have been reported ranging from 10% to 15% associated with postoperative symptoms or recurrent gastroesophageal reflux. In this paper, we present 38 patients submitted to different procedures in which different "abnormal" deformities were found during the postoperative radiological evaluation with barium swallow. The symptoms associated with these deformities were pain (62%), dysphagia (43%), early satiety (37%), postprandial discomfort (35%), and recurrent postoperative reflux (30%). Dysphagia and pain were frequently observed after the Nissen-Rossetti technique, in which a bilobed stomach and stricture (46%) were confirmed. Hiatal hernia was observed in two patients, and slipped Nissen in one patient associated to pain and early satiety. Patients were submitted to conservative treatment (endoscopic dilatation, proton pump inhibitors, and prokinetics), but 10 patients were submitted to redo surgery. There were no complications, and good results were obtained after redo operations.

XXIV World Congress of the international College of surgeons. Congreso Mundial del Esófago, Madrid, Mayo 2004.

Clasic Open transthoracic or transhiatal esophagectomy compared with videoasisted or completely thoracoscopic/ laparoscopic esophagectomy for carcinoma of the esophagus.

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Surgical treatment of esophageal cancer is associated with a high rate morbimortality even in specialized centers. Minimally invasive surgery has been proposed in order to decrease these complications. In this paper we present our results regarding postoperative morbimortality and the survival comparing the classic transthoracic or transhiatal open esophagectomy versus videoasisted or miniinvasive surgery. Results: 155 patients were included in this study, operated on between 1986-2002:

Technique	n	Morbidity %	Mortality %	Mean survival Months
a) Transthoracic (TT) open	59	62.1	11.8	29.2
b) Transhiatal (TH) open	58	58.6	8.6	25.5
c) TT or TH video assisted	30	43.2	6.6	24.6
d) Toracoscopic/ Laparoscopic	8	37.5	0	21 (10-38)

p ab v/s cd <0.05

Conclusions: Transthoracic or Transhiatal open approach have similar results.

After videoasisted surgery the morbimortality rate trends to decreased compared to open surgery.

Survival is not affected by the surgical procedure employed.

Totally Thorascoscopic/Laparoscopic surgery performed in early steges of the disease seem to be an excellent procedure with less morbimortality.

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Laparoscopic cardial calibration and posterior gastropexy (Hill-Larrain) procedure in patients with reflux esophagitis: anatomo-physiological basis. Technique and results

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Laparoscopic antireflux is the gold standard procedure for treatment of patients with reflux esophagitis. The current results of the laparoscopic approach are absolutely comparables with the results obtained during the open surgery era. Nissen, Nissen-Rossetti, or Toupet techniques qre more frequently used. We have performed Cardial Calibration and Posterior Gastropexy or Nissen fundoplication by open approach with similar results.

The purpose of this paper is to present the anatomo-physiological basis to employ cardial calibration and posterior gastropexy in patients with reflux esophagitis. This study includes 108 symptomatic patients, 12 of them with associated extraesophageal manifestations (posterior laryngitis). Endoscopic mild or moderate esophagitis was confirmed in 80 patients, Barrett´s esophagus in 12 patients, and type I hiatal hernia in 16 patients. All patients were also submitted to manometry, 24 hr intraesophageal Ph monitoring, barium swallow before and after surgery. The follow up ranged 12-36 months.

Results: There were no conversion, major intraoperative, a postoperative complicationsnor mortality. Postoperative dysphagia was present in 5% of cases. Symptomatic recurrence of reflux was observed in 10.2% and endoscopic presence of esophagitis in 12.3% of cases. Lower esophageal sphincter pressure increased significantly after surgery even in patients with endoscopic recurrence. 24h intraesophageal monitoring improved after surgery except in patients with objective recurrence of esophagitis.

In conclusion, Laparoscopic cardial calibration with posteripor gastropexy presents comparable results

to those reported after Nissen or Toupet fundoplication and therefore could be another excellent therapeutic option in patients with reflux esophagitis.

Laparoscopic gastroplasty with double partial gastric transection for patients with moderate obesity: a new restrictive procedure

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Currently, surgery is the unique treatment that reduce permanently the EWL > 50%. Medical treatment usually is ineffective in patients with severe obesity. All different endoscopic or surgical therapeutic options have advantages and disadvantages and up to now there is no ideal operation and all patients must be closely followed with multidisciplinary approach (diet, exercise, life-style, psychiatric support, etc).

In this paper we propose a restrictive operation for patients with unresolved moderate obesity in spite of multiple multidisciplinary conservative treatments.

This operation creates a small subcardial pouch (less than 80ml. capacity) through an oblique 6-8 cms transection of the lesser curvature 2 cms below the EGJ to the gastric fundus, complemented with second partial transection of the greater curvature by applying Endogia devices 2 cms below the first transection in order to perform a channel connecting the subcardial pouch with the distal stomach.

We present the preliminary result in 10 patients (BMI 32-38) after 6 months of the follow up. No intraoperative or postoperative complications were observed. In all patients postoperative barium swallow demonstrated a small subcardial pouch. The weight reduction ranged 17-35 Kg and EWL range 35-70%. The indications, advantages and disadvantages of this procedure are discussed but we believe that could be a good alternative technique for a selected group of patients.

Pathological anatomoradiological deformities after laparoscopic antireflux surgery as a cause of postoperative symptoms

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Laparoscopic Nissen total fundoplication, the Nissen-Rossetti's modifications, partial fundoplication or cardial calibration procedures, are associated with mechanical complications and postoperative symptoms, which occur in about 15-25% of cases. All of the antireflux procedures produce some type of deformity that is the "normal" result of the antireflux barrier created by the surgery. However most of the symptoms mentioned have their abnormal or pathological anatomic basis as cause of origin.

In the present paper we present the pathologic anatomoradiological deformities of the esophagogastric junction after antireflux surgery as a factor in the appearance of postoperative symptoms. Pathological deformity was defined as the postoperative anatomical variations of the esophagogastric junction that are associated with the appearance of postoperative symptoms.

We have evaluated 262 patients operated on for reflux esophagitis, 15/161 patients submitted to Nissen fundoplication 9/87 to Cardial calibration with posterior gastropexy presented some type pathological deformities associated with symptoms appearance. Other 14 patients were sent to us due to the unsatisfactory results after Nissen Rossetti procedure in order to be evaluated and to propose the definitive treatment for them. They were assessed with radiological examination with barium swallow in order to study the postoperative state of the antireflux technique employed and to study the characteristics of the new esophagogastric junction. A total of 38 patients presented different pathological deformities associated with chest pain (62%), dysphagia (43%) early satiety (37%) and reflux symptoms (30%). Dysphagia was more frequently seen after Nissen-Rossetti techni-

que secondary to a bilobed stomach confirmed in 66% of these patients. Reflux symptoms were observed more frequently after Nissen or Cardial calibration. Other deformities, more rarely observed were cardial stricture, slipped Nissen, psudotumor and paraesophageal hiatal hernia.

Conservative medical management was done in 27 patients and 11 patients were submitted to surgical revision in order to correct the anatomical complication.

In conclusion, laparoscopic antireflux surgery presents good results. However in some cases correlated to wrong surgical maneuvers, in special after Nissen-Rossetti technique, the frequency of postoperative "deformities" of esophagogastric junction are associated with a higher incidence of symptoms that must be recognized by radiological barium assessment in order to indicate the best management strategy.

Dis Esophagus. 2004;17(3):235-42.

Histological inflammatory changes after surgery at the epithelium of the distal esophagus in patients with Barrett's esophagus: a comparison of two surgical procedures.

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There are many reports concerning the surgical treatment of patients with Barrett's esophagus, but very few focus on histological changes of inflammatory cells in squamous and columnar epithelium before and late after classic antireflux or acid suppression-duodenal diversion surgery. We evaluate the impact of these procedures in the presence of intestinal metaplasia, dysplasia and Helicobacter pylori in the columnar epithelium. Two groups of patients were studied, 37 subjected to classic antireflux and 96 to acid suppression-duodenal diversion operations. They were subjected to endoscopic and histological studies before and at 1, 3 and more than 5 years after surgery. Manometric evaluations and 24 h pH monitoring were performed

before and at 1 year after surgery. The presence of inflammatory cells at both the squamous and columnar epithelium was significantly higher at the late follow up in patients subjected to classic antireflux surgery compared with patients subjected to acid suppression-duodenal diversion operations ($P < 0.02$ and $P < 0.001$, respectively). Intestinal metaplasia, present in 100% of patients before surgery, had decreased significantly at 3 years after surgery in patients subjected to acid suppression-duodenal diversion operations compared with classic antireflux procedures, 75% versus 53%, respectively ($P < 0.001$). The presence of Helicobacter pylori did not vary before or after surgery in either group. In conclusion, acid suppression-duodenal diversion operations are followed by a decreased presence of inflammatory cells in both squamous and columnar epithelium compared with classic antireflux surgery in patients with Barrett's esophagus. Intestinal metaplasia and dysplasia and inflammation findings were also less common after acid suppression-duodenal diversion operation.

Plast Reconstr Surg. 2004 Aug;114(2):559-64; discussion 565-6.

SMAS graft of the nasolabial area during deep plane rhytidectomy.

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The extensive list of treatments for the nasolabial area illustrates that the problem is not solved yet. Although a better understanding of the anatomy and physiology of the nasolabial area has been developed, the ideal treatment has not been found. It seems that a combined approach based on summation of partially effective modalities is the best option. The authors present their experience with combined deep plane rhytidectomy, malar fat lift, and superficial musculoaponeurotic system graft in the treatment of the aging nasolabial area. Results in 70 consecutive patients are presented with this simple, nonscarring, inexpensive technique. J Gastrointest Surg. 2004 May-Jun;8(4):434-41.

Adenocarcinoma appearing very late after antireflux surgery for Barrett's esophagus: long-term follow-up, review of the literature, and addition of six patients.

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Antireflux surgery is supposed to prevent the development of adenocarcinoma in patients with Barrett's esophagus. The purpose of this study was to determine the prevalence of adenocarcinoma late after antireflux surgery. A total of 161 patients with long-segment Barrett's esophagus had antireflux surgery and were followed for a mean of 148 months (range 54 to 268 months). Clinical, endoscopic, histologic, and functional studies were performed. Of the original 161 patients, 147(91.3%) completed long-term follow-up. Six patients (4.1%) developed adenocarcinoma 4,5,6,9,17, and 18 years, respectively, after surgery. Five were men. Two of them were asymptomatic for 12 and 17 years. Three of them had extra-long-segment Barrett's esophagus. Five underwent manometric evaluation with only one showing an incompetent lower esophageal sphincter. In two cases, 24-hour pH studies showed massive acid reflux. Two patients had early adenocarcinoma, whereas four had advanced carcinoma. Adenocarcinoma in long-segment Barrett's esophagus seems to develop mainly in patients with recurrence of pathologic reflux, especially among men. A review of the English language literature during the last 23 years found 25 articles dealing with Barrett's esophagus and antireflux surgery. Most of these reports had only a few patients with short-term follow-up (<60 months). To determine the true prevalence of this complication, a long-term objective follow-up is necessary.

World J Surg. 2004 Mar;28(3):225-31. Epub 2004 Feb 17.
Surgical treatment of Barrett's esophagus: 1980-2003.

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Barrett's esophagus is a complication of long-standing gastroesophageal reflux and can be a pre-malignant condition. The goals of surgical treatment, which were well summarized by DeMeester, have been increased and more detailed by us. They consist of (1) controlling symptoms of gastroesophageal reflux disease; (2) abolishing acid and duodenal reflux into the esophagus; (3) preventing or eliminating the development of complications; (4) preventing extension of or an increase in the length of intestinal metaplasia; (5) inducing regression of intestinal metaplasia to the cardiac mucosa; and (6) preventing progression to dysplasia, thereby inducing regression of low-grade dysplasia and avoiding the appearance of an adenocarcinoma. We have reviewed 25 articles in the English-language literature published from 1980 to 2003 dealing specifically with the surgical treatment of Barrett's esophagus. In most of these papers too few patients were included, the follow-up was less than 60 months, and the clinical success deteriorated with time. Acid reflux persists after surgery in nearly 35% of Barrett's esophagus patients; and at 10 years after surgery duodenal reflux is present in 95%. Peptic ulcer, stricture, and erosive esophagitis are present in 15% to 30% late after surgery, and in 16% there is progression of the intestinal metaplasia. There is the appearance of low-grade dysplasia in 6.0% and adenocarcinoma in 3.4%, and there is regression of low-grade dysplasia in 45.0%. These results challenge the arguments supporting antireflux surgery for patients with Barrett's esophagus: The clinical results are not optimal, no long-lasting effect has been demonstrated, and it does not prevent the appearance of dysplasia or adenocarcinoma. An excellent alternative is acid suppression and a duodenal diversion procedure, which has had 91% clinical success for more than 5 years. This regimen has almost eliminated acid and duodenal reflux, and there has been no progression to dysplasia or

adenocarcinoma. Moreover, in 60% of the patients with low-grade dysplasia, regression to nondysplastic mucosa has occurred.

Biol Res. 2004;37(3):395-403

The gonyautoxin 2/3 epimers reduces anal tone when injected in the anal sphincter of healthy adults.

Garrido R, Lagos N, Lattes K, Azolas CG, Bocic G, Cuneo A, Chiong H, Jensen C, Henriquez AI, Fernandez C. Departamento de Cirugía, Sección Proctología, Hospital Clínico Universidad de Chile.

The primary clinical symptom of Paralytic Shellfish Poisoning is acute paralytic illness produced by paralyzing toxins. Paralytic shellfish poison is formed by a mixture of phycotoxins and their toxicity is due to its reversible binding to a receptor site on the voltage-gated sodium channel on excitable cells, thus blocking neuronal transmission. We studied the effect of the gonyautoxin 2/3 epimers by local infiltration in the anal internal sphincter of healthy voluntary adults in order to reduce anal tone. The toxin was injected after prior clinical evaluation, anoscopy and anorectal manometry. Post injection clinical examination, electromyography and anorectal manometry were performed. Resting and voluntary contraction pressures were measured and the anorectal inhibitory and anocortical reflexes were tested by manometry. Blood and urine samples were obtained from each participant, and hemogram, basic metabolic panel, and urinalysis were done both before and one week after the injection. This study shows, for the first time, that gonyautoxin 2/3 reduces the anal tone by relaxing the anal sphincters in 100 % of the participants. Manometric recordings showed a significant decrease in anal maximal voluntary contraction pressure after the toxin injection, dropping to 55.2 ± 6.2 % and 47.0 ± 6.8 % (Mean Value \pm Std.Dev.) of the baseline values at 2 minutes and at 24 hours respectively after the injection. Post-injection electromyography showed that activity of the muscle was abolished. We conclude that local administration of gonyautoxin 2/3 to the anal sphincter produces immediate relaxation and a statistically significant decrease in the anal tone ($p < 0.001$).

Plast Reconstr Surg. 2004 Aug;114(2):316-25; discussion 326-8.

Nasal reconstruction with a forehead flap in children younger than 10 years of age.

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Nasal reconstruction has been analyzed extensively in adults but not in children. The purpose of this article is to review the authors' experience with the forehead flap for nasal reconstruction in 10 children under the age of 10 during a 10-year period. Outcomes were assessed by an objective grading system for cosmetic surgical results. Subjective criteria were also applied by an assistant surgeon and by the patients' relatives. Appropriate results were obtained by the following principles: (1) A modified approach that considers three subunits consisting of the dorsum, tip, and ala was used; (2) a forehead flap is the best option for an entire subunit or a full-thickness defect repair; (3) the forehead flap design should be paramedian, oblique, and opposite to the major defect to avoid the hairline and allow better caudal advancement; (4) ear or costal cartilages are good options for structural support (the septum is a nasal growth center that should not be touched); (5) infundibular undermining of vestibular mucosa, turnover flaps, and skin grafts are good options for internal lining; (6) reconstruction is a three-stage procedure (an intermediate operation is added to thin the flap and perform secondary revisions for lining and support); (7) reconstruction should be completed before the child is school aged, to achieve good aesthetic results immediately and avoid psychosocial repercussions; and (8) the reconstructed nose, with skin, lining, and support, will grow with the child (no final surgery should be planned at the age of 18, other than revisions of late complications).

Am J Physiol Gastrointest Liver Physiol. 2004 Jan; 286(1): G23-30. Epub 2003 Aug 14.

Enterocyte differentiation marker intestinal alkaline phosphatase is a target gene of the gut-enriched Kruppel-like factor.

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We have examined the role that the transcription factor gut-enriched Kruppel-like factor (KLF4 or GKLF) plays in activating the enterocyte differentiation marker gene intestinal alkaline phosphatase (IAP). A yeast one-hybrid screen was used to identify proteins interacting with a previously identified cis-element (IF-III) located within the human IAP gene promoter. DNA-protein interactions were determined by using EMSA. Northern blot analysis was used to study RNA expression in human colon cancer RKO cells engineered to overexpress KLF4. Transient transfections with IAP-luciferase reporter constructs were used to characterize the mechanisms by which KLF4 activates IAP transcription. The yeast one-hybrid screen and EMSA identified KLF4 as binding to IF-III. RKO cells induced to overexpress KLF4 demonstrated a corresponding dose-dependent increase in IAP expression, and EMSA with nuclear extract from these cells confirmed that KLF4 binds to the IF-III element. Transient transfections revealed that KLF4 transactivated the IAP gene largely via a critical segment in the IAP promoter that includes the IF-III cis-element. Mutant KLF4 constructs failed to fully activate IAP. We have identified the enterocyte differentiation marker IAP as a KLF4 target gene. IAP transactivation by KLF4 is likely mediated through a critical region located within the proximal IAP promoter region.

Mol Endocrinol. 2004 Aug;18(8):1941-62. Epub 2004 May 13.

Thyroid hormone positively regulates the enterocyte differentiation marker intestinal alkaline phosphatase gene via an atypical response element.

Malo MS, Zhang W, Alkhoury F, Pushpakaran P, Abedrapo MA, Mozumder M, Fleming E, Siddique A, Henderson JW, Hodin RA.

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Thyroid hormone (T3) is a critical regulator of intestinal epithelial development and homeostasis, but its mechanism of action within the gut is not well understood. We have examined the molecular mechanisms underlying the T3 activation of the enterocyte differentiation marker intestinal alkaline phosphatase (IAP) gene. RT-PCR and Western blotting showed that thyroid hormone receptors TRalpha1 and TRbeta1 were expressed in human colorectal adenocarcinoma Caco-2 cells. Northern blotting detected expression of two IAP transcripts, which were increased approximately 3-fold in response to T3. Transient transfection studies with luciferase reporter plasmids carrying various internal and 5' deletion mutations of the IAP promoter localized a putative thyroid hormone response element (TRE) to a region approximately 620 nucleotides upstream (-620) of the ATG start codon. EMSAs using TRalpha1-retinoid X receptor alpha (RXRalpha) on sequential 5' and 3' single nucleotide deletions defined the TRE between -632 and -612 (5'-TTGAACTCagccTGAGGTAC-3'). Compared with the consensus TRE, the IAP-TRE is novel in that it contains an everted repeat of two nonamers (not hexamers) separated by three nucleotides. Neither TRalpha1 nor RXRalpha binds to the IAP-TRE; however, TRbeta1 binds to this TRE with minimal affinity. In the presence of TR and RXRalpha, only the TR-RXRalpha heterodimer binds to the IAP-TRE. Mutagenesis of either nonamer abolishes the biological activity of IAP promoter. We have thus identified a novel response element that appears to mediate the T3-induced activation of the enterocyte differentiation marker, intestinal alkaline phosphatase.

Toxicol. 2004 Oct;44(5):521-8.

Permeability of human jejunal segments to gonyautoxins measured by the Ussing chamber technique.

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The aim of this work was to study the mechanisms involved in intestinal permeability of gonyautoxins. For this purpose, the influence on transmucosal resistance of gonyautoxins and their permeability was investigated in excised human jejunal segments. To evaluate these events, the isolated mucosa was mounted in Ussing chambers for electrophysiological characterization. The organic gonyautoxin cations were applied to the mucosal side and samples collected on the serosal side. The permeability of gonyautoxins measured at 37 degrees C was 4.3-fold greater than at 4 degrees C, indicative of high cation selective transcellular permeability. In order to characterize the permeability of gonyautoxins, the effects of choline, ouabain, phlorizin and fluorescein were studied. The inhibition by these compounds was expressed as percent inhibition of the maximal flux of gonyautoxins at 120 min. Replacement of sodium ion by choline, showed the highest inhibition (85.5% from control). Ouabain, fluorescein and phlorizin inhibit the gonyautoxins flux by 53.9, 41.0 and 9.64%, respectively. The inhibition of gonyautoxins' permeability produced by ouabain and phlorizin go in parallel with an increase in the transmucosal electrical resistance (TER). This study shows that permeability of gonyautoxin cations occurred predominantly by the transcellular pathway (76%) when toxins were applied in the mucosal-serosal direction. The paracellular pathway of gonyautoxins was 24% of total permeability when compared with [3H] mannitol permeability. These findings suggests that permeability of gonyautoxins depends on temperature and processes involving sodium ion. Replacing sodium ions by choline ions showed a marked effect on TER.

Aesthetic Plast Surg. 2004 May-Jun;28(3):144-7. Epub 2004 Jul 30.

Abdominoplasty: the use of polypropylene mesh to correct myoaponeurotic-layer deformity.

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The aponeurotic layer is a very important element to consider during abdominoplasty. For most patients, a simple midline plication is enough to obtain good results. However, for in patients with severe aponeurotic laxity, some other maneuvers must be performed. The purpose of this study was to evaluate the use of polypropylene mesh in this group of patients. We analyzed the results for 20 patients in whom three types of mesh anchoring were used on the basis of intraoperative findings. Adequate long-term follow-up results were obtained, with no recurrence of rectus diastases, as shown by ultrasonography.

Dermatología

VIII Congreso de Dermatología y Venereología, Reunión anual de Dermatólogos del Cono Sur (RADLA), 2-4 de mayo 2004, Lima, Perú

Paniculitis granulomatosa: rol de microbacterias

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Entre octubre de 2002 y febrero de 2003 se presentaron aproximadamente 60 casos, en su mayoría mujeres entre 30 y 50 años que acudieron al mismo centro cosmetológico para tratamiento de lipodistrofia. Se les administró una sustancia inyectable, al parecer Thiomucase, asociado a un extracto de alcachofa. Se presenta 8 pacientes mujeres, sanas, 37 años de edad promedio, que consultaron 2 a 3 meses después de aplicarse esta sustancia, por aparición de múltiple nódulos subcutáneos, de 1 centímetro de diámetro, dolorosos, eritematosos, algunos drenando secreción caseosa, la biopsia mostró dermatitis y paniculitis crónica de tipo cuerpo extraño. Los estudios

bacteriológicos fueron negativos, excepto dos casos con baciloscopia positiva y un caso en el cual la baciloscopia y cultivos muestran un bacilo ácido-alcohol resistente, con PCR compatible con *Mycobacterium abscessus*. En este caso, no hay respuesta satisfactoria al tratamiento con claritromicina y ciprofloxacino por 5 meses.

Los procedimientos cosméticos pueden presentar complicaciones como infección de herida operatoria y reacción de hipersensibilidad. En caso de infección, los gérmenes habitualmente identificados incluyen *S.aureus* y ocasionalmente otros microorganismos como las micobacterias, planteamos la posibilidad de que se trate de una respuesta de hipersensibilidad celular a alguna de las sustancias inyectadas, siendo el rol de las micobacterias controvertido.

VIII Congreso de Dermatología y Venereología, Reunión anual de Dermatólogos del Cono Sur (RADLA), 1-4 de mayo 2004, Lima, Perú

Manifestaciones cutáneas por virus de la inmunodeficiencia humana en niños de Santiago de Chile.

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Los niños infectados por el virus de la inmunodeficiencia humana, VIH, pueden presentar una amplia variedad de manifestaciones mucocutáneas. Muchas veces estas manifestaciones con más severas y más difíciles de tratar que las de los niños sanos.

En algunos casos, los trastornos de la piel o de las mucosas proporcionan un indicador temprano respecto de la presencia de infección pediátrica por VIH positivos de Santiago de Chile fueron examinados.

Registramos 72 niños con rango de edades entre 7 meses y 15 años 7 meses.

La transmisión vertical de la infección fue documentada en 69 (95,8%) de esos niños.

El 69,4% de los niños estudiados no tenía antecedente de lesión cutánea consignada, y en los niños que tuvieron antecedente, el diagnóstico más frecuente fue candidiasis (38,5%).

Las manifestaciones mucocutáneas fueron encontradas en 42 (58,3%).

Los hallazgos dermatológicos más frecuentemente observados fueron las enfermedades infecciosas (36%), de las cuales las infecciones micóticas fueron las más frecuentes (13,5%), seguidas por las infecciones virales (9,6%). Con el aumento en el número de pacientes pediátricos infectados por el VIH en el mundo, es muy importante reconocer las manifestaciones cutáneas, ya que pueden permitir realizar un diagnóstico precoz de la infección por VIH.

Este es el primer estudio de las enfermedades de la piel en niños VIH positivos de Chile.

VIII Congreso de Dermatología y Venereología, Reunión anual de Dermatólogos del Cono Sur (RADLA), 4 de mayo 2004, Lima, Perú

Prevención y corrección de "Orejas de perro" en cirugía Dermatología

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Las orejas de perro son una deformación muy habitual resultante del cierre quirúrgico de un defecto y corresponden a un exceso de tejido que al ser desplazado a los extremos de la herida se evidencia en la forma de una protrusión en la forma de un cono, que resulta no funcional e inestética, especialmente en localizaciones faciales. En el caso de pequeños defectos de pacientes mayores, habitualmente no es necesario corregirlos, dado la laxitud del tejido y la tendencia a la resolución espontánea. Su reparación es necesaria en defectos mayores, especialmente en personas jóvenes, donde las lesiones suelen persistir en el tiempo y ser más notorias.

Una adecuada planificación de la cirugía y atención a las líneas de tensión de la piel relajada, permitirán evitar o atenuar la aparición de las orejas de perro. En la presentación se detallan en formato de video y en forma práctica las distintas alternativas quirúrgicas para la solución de este frecuente problema, en atención a las distintas localizaciones y edad del paciente.

Se incluyen: La extensión de la herida en la misma dirección que su eje principal, plastias triangulares, corrección en ángulo recto, combinadas, etc., realizadas en modelo animal y en cirugía dermatológica in vivo.

La comprensión de los mecanismos que generan las orejas de perro así como las técnicas que permiten su adecuada reparación, forman parte de los recursos que todo dermatólogo debe manejar en su práctica quirúrgica.

VIII Congreso de Dermatología y Venereología, Reunión anual de Dermatólogos del Cono Sur (RADLA), 1-4 de mayo 2004, Lima, Perú

Análisis de la correlación clínica-histopatológica de tumores cutáneos malignos.

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En los últimos años se ha observado un aumento de la incidencia del cáncer cutáneo tanto a nivel mundial como en nuestro país. El objetivo de este trabajo fue analizar la correlación clínica-histopatológica de tumores cutáneos malignos en el Servicio de Dermatología del HCUCh (1996-2001). Los datos se obtuvieron del registro de patologías biopsiadas del Servicio y de los informes histopatológicos correspondientes a estas patologías. De un total de 3.476 informes revisados se obtuvieron y analizaron 579 (19.7%) tumores cutáneos malignos clínicamente diagnosticados que correspondían a 407 (70.3%) Carcinomas Basos celulares (CBC), 72 (12.4%) Carcinomas Espinocelulares (CEC), 43 (7.4%) Melanomas (MM) y 57 (9.8%) otras neoplasias. Las biopsias diagnosticadas histológicamente como CBC, CEC, MM, con diagnóstico clínico diferente (falsos negativos) representaron un 20.8%, 58.9% y 28.6%, respectivamente. Del total e falsos negativos el diagnóstico clínico de tumores cutáneos malignos representó un 32% en los CBC, 59.5% CEC y 75% MM.

Con los datos obtenidos se calcularon los siguientes parámetros para cada tipo de tumor cutáneo maligno:

	CBC	CEC	MM
Sensibilidad (%)	78.5	44	75
Valor predictivo positivo (%)	67.9	47.8	55.8
Índice de acertividad (%)	69.5	45.8	55.8

Los datos serán analizados y comparados con estudios similares presentados en la literatura nacional e internacional.

VIII Congreso de Dermatología y Venereología, Reunión anual de Dermatólogos del Cono Sur (RADLA), 3-4 de mayo 2004, Lima, Perú

Tratamiento de cicatriz Queloidea con láser CO2, experiencia local

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La cicatriz Queloidea es un proceso inflamatorio fibrosante que sobrepasa los márgenes de la herida inicial y tiende a persistir por más de 12 meses, creciendo con los años, ubicándose preferentemente en lóbulos auriculares, cuello, hombros y región superior de tronco, siendo generalmente secundario a cirugía, tatuajes, vacunas, perforaciones e incluso espontáneos. Constituyen para el dermatólogo un problema de manejo importante dado que este es difícil, existiendo múltiples tratamientos, siendo los más usados: la crioterapia, los corticoides intralesionales y parches de silicona. Otras terapias incluyen el uso de ácido retóico tópico, bleomicina intralesional, radioterapia, uso de láser CO2 y como última alternativa la resección quirúrgica, la que debe asociarse a otras terapias debido a su alto porcentaje de recidiva.

En el presente estudio se revisó la respuesta al tratamiento con láser de CO2 de 13 pacientes (10 mujeres y 3 hombres), con un rango de edad de 11 a 53, que presentaban cicatriz Queloidea en la (s) oreja (aurícula y/o lóbulo). Este se usó en forma combinada con Cidoten Rapeliento intralesional desde la 1° a 2° semana post láser, con repetidas aplicaciones en controles posteriores para prevenir la recurrencia y en todos los casos se complementó con el uso de parches de silicona con un seguimiento de hasta 2 años. En un solo caso se usó la

bleomicina intra-lesional sumado a los tratamientos ya descritos.

Ante la variabilidad de respuesta a los diversos tratamientos, sobre todo en queloides de gran tamaño el uso de láser CO2 constituye una útil herramienta que permite corregir el aspecto estético rápidamente y su uso combinado presenta un porcentaje aceptable de riesgo recidiva.

Endocrinología

Obes Res. 2004 Feb;12(2):340-5.

Intestinal FABP2 A54T polymorphism: association with insulin resistance and obesity in women.

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Objective: To assess the association between the Ala54Thr genetic polymorphism of the fatty acid-binding protein 2 (FABP2) gene with insulin resistance and obesity. **Research Methods and procedures:** According to a sampling scheme based on BMI, 33 adult obese women (BMI \geq 30) and 30 adult normal-weight women (BMI $>$ 18.5 and $<$ 25 kg/m²) were recruited for this study. Women with chronic inflammatory diseases or acute pathology were excluded. Glucose, insulin, leptin, lipids, and tumor necrosis factor alpha (TNF alpha) were measured in fasting plasma samples. Insulin resistance was estimated through the homeostasis model assessment for insulin resistance method. The Ala54Thr allelic variant was determined by polymerase chain reaction, followed by restriction fragment-length polymorphism analysis. **RESULTS:** The Thr54 allele was more frequent in obese than in nonobese women (47.0% vs. 31.7; $p = 0.08$). Among obese women, higher TNF alpha concentrations were found when comparing the Thr54/Thr54 genotype (30.0 \pm 7.1 pg/mL) with either the Ala54/Thr54 genotype (21.2 \pm 8.4 pg/mL) or the Ala54/Ala44 genotype (20.1 \pm 7.0 pg/mL) ($p < 0.05$). In

addition, higher fasting plasma insulin and leptin levels were found among Thr54/Thr54 homozygotes compared with the other genotypes ($p < 0.05$). **DISCUSSION:** Our results suggest that the Ala54Thr polymorphism of the FABP2 gene is associated with obesity and insulin resistance. The effect of this polymorphism might be mediated by elevated production of TNF alpha.

Dev Biol. 2004 Mar 15;267(2):430-49.

TrkB receptors are required for follicular growth and oocyte survival in the mammalian ovary.

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Although it is well established that both follicular assembly and the initiation of follicle growth in the mammalian ovary occur independently of pituitary hormone support, the factors controlling these processes remain poorly understood. We now report that neurotrophins (NTs) signaling via TrkB receptors are required for the growth of newly formed follicles. Both neurotrophin-4/5 (NT-4) and brain-derived neurotrophic factor (BDNF), the preferred TrkB ligands, are expressed in the infantile mouse ovary. Initially, they are present in oocytes, but this site of expression switches to granulosa cells after the newly assembled primordial follicles develop into growing primary follicles. Full-length kinase domain-containing TrkB receptors are expressed at low and seemingly unchanging levels in the oocytes and granulosa cells of both primordial and growing follicles. In contrast, a truncated TrkB isoform lacking the intracellular domain of the receptor is selectively expressed in oocytes, where it is targeted to the cell membrane as primary follicles initiate growth. Using gene-targeted mice lacking all TrkB isoforms, we show that the ovaries of these mice or those lacking both NT-4 and BDNF suffer a stage-selective deficiency in early follicular development that compromises the ability of follicles to grow beyond the primary stage. Proliferation of granulosa cells required for this transition and expression of FSH

receptors (FSHR), which reflects the degree of biochemical differentiation of growing follicles, are reduced in *trkB*-null mice. Ovaries from these animals grafted under the kidney capsule of wild-type mice fail to sustain follicular growth and show a striking loss of follicular organization, preceded by massive oocyte death. These results indicate that *TrkB* receptors are required for the early growth of ovarian follicles and that they exert this function by primarily supporting oocyte development as well as providing granulosa cells with a proliferative signal that requires oocyte-somatic cell bidirectional communication. The predominance of truncated *TrkB* receptors in oocytes and their developmental pattern of subcellular expression suggest that a significant number of NT-4/BDNF actions in the developing mammalian ovary are mediated by these receptors.

Rheumatology (Oxford). 2003 Feb;42(2):308-13
The -308 polymorphism in the tumour necrosis factor (TNF) gene promoter region and ex vivo lipopolysaccharide-induced TNF expression and cytotoxic activity in Chilean patients with rheumatoid arthritis.

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Objective: To investigate the association of the -308 polymorphism in the promoter region of the tumour necrosis factor (TNF) gene with susceptibility to the development of RA. We also explored the expression and cytotoxicity of TNF in relation to the -308 polymorphism. **Methods:** We recruited 92 RA patients and 42 healthy control subjects. Genotyping for the TNF promoter was performed by polymerase chain reaction-restriction fragment length polymorphism analysis. To study the overexpression of TNF we used a whole-blood culture system. TNF cytotoxicity was assessed in the L929 cell line. **Results:** The TNF2 allele was found in 23% of RA patients and 10% of controls. Although both groups

showed high variability in serum TNF concentration, in the lipopolysaccharide-induced TNF level and in the cytotoxicity of the cytokine in the L929 cell line, these differences were not associated with the -308 TNF polymorphism. **Conclusion:** No associations were found between the -308 TNF promoter polymorphism, serum and ex vivo TNF levels and the cytotoxic activity of TNF in RA patients.

Farmacia

V Congreso Paraguayo de Química, Asunción, Paraguay, 9 al 12 de junio, 2004

Evaluación de errores de prescripción, dispensación y administración de medicamentos en un hospital pediátrico

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Introducción: El concepto de seguridad de los medicamentos ha cambiado, hoy se busca conseguir beneficios terapéuticos que mejoren la calidad de vida del paciente, minimizando los riesgos en el uso y logrando que los recursos se usen eficientemente. La literatura muestra que la morbi-mortalidad producida por los medicamentos es muy elevada, y que en parte se debe a fallas o errores ocurridos durante su utilización clínica. El sistema de utilización de los medicamentos incluye distintos procesos que comienzan en la selección, prescripción, validación, dispensación, administración y seguimiento, cada uno supone una probabilidad de error que podría causar efectos adversos en los pacientes. Un estudio realizado en Estados Unidos (Harvard Medical Practice Study), mostró un 3.7% de los pacientes hospitalizados habían sufrido efectos iatrogénicos derivados de las actuaciones médicas durante su estadía hospitalaria, de los cuales un 19,4% estaban causados por medicamentos, de estos, el 45% fueron considerados prevenibles. En Chile no existen cifras exactas para estos problemas, sin embargo es un problema real que debe ser diagnosticado, evaluado para implementar acciones preventivas.

Objetivos: Identificar y cuantificar la incidencia de errores de medicación en pacientes pediátricos hospitalizados.

Método: Se analizó de manera prospectiva el proceso de utilización de medicamentos en pacientes hospitalizados pediátricos durante el periodo abril-mayo del 2003. Se utilizaron como fuentes de información las fichas clínicas, las recetas médicas y las fichas de enfermería. La recolección de datos usó una ficha especialmente diseñada. El trabajo se dividió en tres etapas, la primera fue la revisión de la solicitud de medicamentos, la segunda la dispensación y finalmente la administración de ellos.

Resultados: En el análisis se incluyeron un total de 1091 recetas con 3078 prescripciones. Se encontró un 27,8% de error en el llenado de la receta, siendo las más frecuentes el nombre del medicamento (41,7%), errores en la dosis, frecuencia y vía de administración fueron 21,4%, 7,1%, 24,1% respectivamente. El error de dispensación fue un 2.9% y el error de administración de un 5.8%.

Conclusión: Se establece en una primera instancia la presencia de errores en la utilización de medicamentos y la necesidad de establecer normas y procedimientos que mejoren la calidad.

Gastroenterología

Clin Sci (Lond). 2004 Jun;106(6):635-43.

Increase in long-chain polyunsaturated fatty acid n - 6/n - 3 ratio in relation to hepatic steatosis in patients with non-alcoholic fatty liver disease.

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Hepatic steatosis is a major feature associated with NAFLD (non-alcoholic fatty liver disease). The aims of the present study were to assess the levels of PUFA (polyunsaturated fatty acids) in liver total lipids, triacylglycerols (triglycerides) and phospholipids of NAFLD patients in relation to those in adipose tissue and hepatic indexes related to oxidative stress as factors contributing to hepatic steatosis. Eleven

control subjects and 19 patients with NAFLD were studied. Analysis of liver and abdominal adipose tissue fatty acids was carried out by GLC. The liver content of protein carbonyl groups and malondialdehyde were taken as indexes related to oxidative stress. NAFLD patients had a depletion in LCPUFA (long-chain PUFA) of the n -6 and n -3 series in liver triacylglycerols, with decreased 20:4, n -6/18:2, n -6 and (20:5, n -3+22:6, n -3)/18:3, n -3 ratios, whereas liver phospholipids contained higher n -6 and lower n -3 LCPUFA. These findings were accompanied by an enhancement of (i) n -6/ n -3 ratio in liver and adipose tissue, (ii) 18:1, n -9 trans levels in adipose tissue, and (iii) hepatic lipid peroxidation and protein oxidation indexes. It is concluded that a marked enhancement in LCPUFA n -6/ n -3 ratio occurs in the liver of NAFLD patients, a condition that may favour lipid synthesis over oxidation and secretion, thereby leading to steatosis. Depletion of hepatic LCPUFA may result from both defective desaturation of PUFA, due to inadequate intake of precursors, such as 18:3, n -3, and higher intake of the 18:1, n -9 trans isomer leading to desaturase inhibition, and from an increased peroxidation of LCPUFA due to oxidative stress.

¿Existe en la constipación severa un trastorno difuso de la motilidad intestinal?

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La constipación crónica es una patología frecuente especialmente en el sexo femenino, en algunos casos se manifiesta con mayor severidad haciéndose refractaria a las terapias convencionales y llegando a la cirugía. En la etiopatogenia se ha sugerido la presencia de alteraciones motoras de colon debido a un tránsito enlentecido, llamado inercia colónica (IC), o bien por alteraciones en los mecanismos de evaluación. Algunos pacientes con IC continúan con igual sintomatología, aún después de resecciones del colon, lo que sugiere la posibilidad de un compromiso más difuso del tubo digestivo. Nuestro objetivo fue investigar en un grupo de pacientes con constipación de larga data la presencia de trastornos motores del intestino del-

gado y su relación con las manifestaciones clínicas y de laboratorio. Material y Métodos: Se estudiaron 34 pacientes, 32 mujeres con una edad x 33,8 años (rango 13-73 años) que fueron referidas a nuestro laboratorio de motilidad desde diferentes fuentes para estudio, con diagnóstico de constipación severa. En 73,5% la constipación se inició en la infancia y en el resto la duración x fue de 14,8 años. En 41,2% se mostró radiológicamente megacolon y en un 32,3% dilatación del intestino delgado. El 35,3% había sido sometido previamente a cirugía resectiva del colon y de este grupo un 25% tenía dos o más operaciones. Sólo 11 pacientes tenían estudio de tránsito colónico con marcadores, que resultó alterado en 10. Para el estudio de la motilidad intestinal se realizó un estudio del intestino delgado alto en ayunas durante 300 min, mediante 4 catéteres profundidos y conectado a transductores externos, ubicados en la cuarta porción del duodeno y ángulo de Treitz. Los trazados se separan en: a) Normales, un trazado con actividad cíclica frecuencia x $1,2 \pm 0,2$ cpm, y amplitud x $32 \pm 5,6$ mmHg. b) Miopáticos, contracciones de amplitud < 2 DS bajo el promedio de un grupo normal. c) Neuropáticos, ausencia de fases III del complejo motor migratorio, o bien fases III no migratorias con una duración $<$ de 3 min, o retrógradas. d) Mixto, una combinación de ambos. Para análisis estadístico de la amplitud de las contracciones se usó el test "t" de Student para datos no pareados.

Resultados: Sólo un 14,7% presentó una motilidad normal, 47,3% presentó alteración motora de tipo miopática, 11,7% alteración motora de tipo neuropática y un 17,7% de tipo mixto. La amplitud x de las contracciones en los grupos miopático y mixto fue de $17,6 \pm 4,8$ mmHg mientras que en los neuropáticos y normales fue en x $40,3 \pm 17,6$ mmHg. ($p < 0,05$). Conclusión: En pacientes con constipación crónica severa se demostró un alto porcentaje de alteraciones de la motilidad del intestino delgado principalmente de carácter miopático. Este hallazgo debe ser considerado al momento de la elección de la terapia de esta enfermedad.

XXVIII Congreso Panamericano de Enfermedades Digestivas, Punta del Este, Uruguay, 28 sept.-4 octubre 2004

Correlación entre cultivo y test H₂ espirado en la detección del sobrecrecimiento bacteriano intestinal.

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El sobrecrecimiento bacteriano intestinal (SBI), es un hallazgo frecuente en presencia de compromiso motor de tubo digestivo como ocurre en diabetes, cirrosis, esclerodermia, obesidad, etc. Hay consenso universal que el cultivo aspirado duodenal es el "gold Standard" en su detección y su relación con otros tests como Hidrógeno (H₂) en aire espirado con glucosa o lactulosa han sido motivo de controversia en especial en algunas patologías. Objetivo: Comparar la presencia de SBI medido por ambas técnicas. Se estudiaron 25 pacientes operados (21 cirugía bariátrica), 4 colecistectomía), 21 mujeres, edad x 33,4 años (rango 22-54) y 4 hombres. La presencia del SBI se determinó con: a) cultivo duodenal (CD), para este estudio se tomó en ayunas una muestra de contenido duodenal (3ml) por aspirado a través de una sonda estéril ubicada en cuarta porción de duodeno. b) Cultivo yeyunal (CY): muestra tomada en pabellón, con tórula a través de una incisión en yeyuno a 30 cm del ángulo de Treitz. Ambas muestras se enviaron a cultivo, en medios para aerobios y anaerobios. Se consideró positivo (+), aquel cultivo que presentaba un recuento ≥ 3 a 10^5 colonias por ml. c) Test de H₂ en aires espirado con lactulosa, examen realizado en ayunas, con una determinación basal y cada 10 min por 180 min después de la ingesta del 12gr de lactulosa, se consideró SBI la presencia de un basal $<$ a 10ppm y o a 2 o más lecturas $>$ a 10 ppm sobre el basal durante los primeros 60 min. Resultados: 5CD y 2 CY fueron (+). De los CD, 2 muestras correspondieron a cepas oro-faríngeas (OF), en las tres restantes se encontró flora colónica ya sea sola o asociada a flora OF. Las 2 muestras (+) en CY correspondían a flora de tipo colónica. No se encontró cultivos (+) simultáneamente en duodeno y yeyuno. Diez test de H₂ fueron compatibles con SBI. De los CD (+), 4 tenían SBI con test de H₂. De los 2 CY (+), 1 tuvo SBI

con test de H₂, el otro resultó ser un paciente con una flora no productora de H₂. Del análisis estadístico: el test de H₂ fue 83,3% sensible, 72,2% específico en detectar SBI comparado con CD y CY, con un 50% de valor predictivo positivo y 93% de valor predictivo negativo. La ausencia de correlación entre el CD y CY es contraria a la teoría que el SBI es ascendente a partir de colon. Es posible que exista SBI en el yeyuno y no en el duodeno porque el ascenso de bacterias no alcanza el nivel del duodeno estudiado, pero no tenemos una explicación clara cuando encontramos un cultivo duodenal (+) con flora colónica, cuando estas bacterias no las detectamos en el yeyuno. Por otra parte la mayoría de las bacterias cultivadas en duodeno fueron de origen OF, ¿contaminación?. Nosotros pensamos que los cultivos del contenido intestinal que son muestras no representan lo que están concurriendo a lo largo del intestino delgado, a diferencia del estudio con lactulosa, la que se recorre todo el intestino distribuyéndose en forma uniforme pudiendo detectar la presencia de SBI a los distintos niveles.

Conclusión: Nuestros resultados ponen en duda si el cultivo es realmente el "gold Standard" en detectar presencia de SBI.

Sobrecrecimiento bacteriano intestinal elemento predictor de la peritonitis bacteriana espontánea y mortalidad en pacientes con cirrosis

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La presencia de sobrecrecimiento bacteriano intestinal (SBI se ha descrito entre un 30 y 70% en los pacientes con cirrosis hepática (CH) y más frecuente en presencia de pacientes con ascitis. Además

los pacientes con CH presentan alteraciones de la motilidad intestinal de tipo neuropático con ausencia o disminución de la actividad cíclica de ayuno y prolongación del tiempo de tránsito orocecal (TTOC). La presencia SBI y el TTOC prolongado se han involucrado con el desarrollo de peritonitis bacteriana espontánea (PBE). La PBE es un grave complicación que ocurre entre el 10 y 30 % de los pacientes con CH y se asocia a una alta mortalidad (20%). Los gérmenes responsables son en general (70%) aerobios gram (-). Nuestro objetivo es estudiar en pacientes con CH la presencia de SBI, PBE y mortalidad en la evolución de estos. Material y Métodos: 105 cirróticos, 60 hombres, con una edad x de 56.6 (rango 35-89), fueron estudiados en un período de 4 años, con un seguimiento x de 22,2 meses (rango 54-3). La presencia de SBI y el TTOC se determinó con test de hidrógeno (H₂) en aire espirado con lactulosa, por 180 min con mediciones cada 10 min después del basal (normal < 20 ppm). Se consideró SBI a la presencia de un valor basal mayor de 20 ppm y/o de 2 o más cifras > a 10 ppm sobre el basal en los primeros 60 min. El TTOC se estimó como tiempo en que se inicia un aumento mantenido de H₂ sobre el basal después de 60 min. Se diagnosticó OBE por cuadro clínico y estudio líquido ascítico compatible, según normas internacionales (recuento de poliformos nucleares igual o > de 250/il en muestra de líquido ascítico, aún con cultivo negativo). El análisis estadístico se realizó con test de Chi cuadrado y curvas de supervivencia de Kaplan Mayer.

Resultados: El 50% de los pacientes presentó SBI en el examen realizado al inicio del estudio, la distribución según clasificación de Child y las complicaciones que presentaron en el tiempo en ambos grupos se muestran en la siguiente tabla (ver).

Podemos observar que no hay diferencias significativas en el estadio de Child. Presencia de ascitis, encefalopatía, no parámetros de laboratorio de los pacientes con y sin SBI. La presencia de PBE y mortalidad fueron significativamente mayores en el grupo con SBI.

	n	Child			(n)	(n)	mg/ml	g/l	%		(n)		
		A	B	C	Ascitis	Encef	Bil	Alb	Prot	PBE	ITU	HDA	Mortalidad
Con SBI	52	14	25	13	34	19	2,6	2,9	58	15*	11	13	12*
Con SBI	53	15	25	13	27	20	2,2	3,1	60	2	8	8	5

Conclusión: De los parámetros estudiados al ingreso, la aparición de PBE y mortalidad fueron significativamente mayores en presencia de SIN. El SBI debería ser investigado y tratado en forma sistemática en estos enfermos.

Hepatitis crónica por virus C: Factores asociados a la severidad del daño histológico

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Introducción: La infección por virus C es una causa de hepatitis crónica y cirrosis frecuente en nuestro medio. Se asume que el 20% de los pacientes desarrollan cirrosis tras un seguimiento de unos 8 años, porcentaje que podría aumentar cuando se asocia a esteatosis y/o hemosiderosis en la biopsia hepática. Además la obesidad (IMC mayor de 27 Kg/m²), diabetes e ingesta alcohólica mayor de 40 gr/semanal, aumentarían el daño histológico. Existen pocos estudios que hayan evaluado estos cofactores en relación a la severidad histológica. Objetivos: Correlacionar los depósitos de grasa, hierro y los cofactores, con el grado de daño hepático según los criterios de Knodell, en pacientes con hepatitis crónica por virus C. Materiales y Métodos: Se incluyeron 84 biopsias analizadas por el mismo patólogo, que se agruparon en: hepatitis crónica con actividad leve y sin fibrosis (grupo I), hepatitis crónica con leve o moderada inflamación y fibrosis leve (grupo II) y hepatitis crónica moderada con fibrosis severa o cirrosis (grupo III). Se analizó la presencia de esteatosis (grados 0,1,2,3) y la hemosiderosis (grados 0,1,2,3) en la biopsia hepática. Además se correlacionó la presencia de obesidad, diabetes mellitas y alcoholismo con la severidad histológica. Resultados: En el grupo I hubo esteatosis en el 56% (53% grado 1 y 3% en grado 2-3), en el grupo II en el 70% (59% grado 1 y 11% grado 2-3) y en el grupo III en el 78% (61% grado 1 y 17% grado 2-3) ($p=0.0104$ Chi-Square en grupo I vs III). La hemosiderosis estuvo presente en el 18% (15% grado 1 y 3% grado 3) 26% (grado 1 en 22%, grado 3 en 4%) y 2 (grado 1 en 4%, grado en 9% y grado 3

en 9%) en los grupos I, II, III respectivamente. (P no significativa). El IMC mayor de 27 estuvo presente en el 56%, 68% y 76% para los grupos I, II y III respectivamente (P no significativa). La ingesta alcohólica > de 40 gramos/semanal se encontró en el 38%, 52% y 57% del grupo I, II y III respectivamente (P no significativa). El porcentaje de diabéticos fue de 3%, 15% y el 30% para los grupos I, II y III respectivamente ($p=0.0053$) prueba bilateral Fisher para grupo I vs II). Conclusiones: Esta experiencia podría sugerir que existiría una correlación proporcional entre severidad histológica y la presencia de esteatosis en la biopsia hepática y que además, se asocia con la diabetes mellitas. No se encontró una asociación entre magnitud y daño con grado de hemosiderosis, el IMC y la ingesta alcohólica. Sin embargo se necesita un mayor número de pacientes.

XXVIII Congreso Panamericano de Enfermedades Digestivas, Punta del Este, Uruguay, 28 sept.-4 octubre 2004

Tiempo de tránsito orocecal: influencia del sexo, la edad y el sobrecrecimiento bacteriano

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Existe un porcentaje importante de pacientes con patología gastrointestinal (cirrosis, pseudo obstrucción intestinal crónica) y otros, como diabetes mellitas, esclerodermia, etc., que se presentan con alteraciones del tiempo de tránsito orocecal (TTOC) y crecimiento bacteriano intestinal (SBI). Su estudio se basa generalmente en el uso de métodos invasivos, de dudosa interpretación y difíciles de reproducir, por lo tanto, el desarrollo y aplicación de técnicas simples y no invasivas es una necesidad en la investigación de las alteraciones de la modalidad intestinal. El test de H₂ en aire espirado (THE) se ha utilizado como una herramienta para medir TTOC y SBI. Hasta el momento no hay estudios que señalen si el sexo, la edad, o la presencia de SBI en sujetos sanos pueden modificar el TTOC. Objetivos: Estudiar el TTOC en sujetos sanos, separados por edad y sexo, evaluando la presencia de SBI, correlacionándolo con el TTOC. Pacien-

tes y métodos: Se estudiaron 400 sujetos, 275 mujeres (68%), edad promedio de 36 años (4-87). La determinación del TTOC y SBI se efectuó mediante el THE. Se definió como TTOC el intervalo de tiempo en minutos, en el cual se inicia una evaluación mantenida de la curva de H₂ en aire espirado (>20 ppm en dos determinaciones sucesivas) inducida por la llegada de la lactulosa al ciego. El valor normal para nuestro laboratorio es entre 80-100 minutos. Se considera SBI a valores basales >a 20 ppm y/o elevación de la curva >20 ppm durante los primeros 40 minutos en los niños y 60 minutos >15 años después de la administración de 12.5 gr de lactulosa. Resultados: TTOC en mujeres: 4-14 a:66+22, SBI 23%; 15-24 a:85+29, SBI 10%; 25-64 a:98+25 SBI 20%; >64: 113+31, SBI 11%. TTOC e hombres: 4-14 a: 61+22, SBI 10% ; 15-24 a: 70+22, SBI 7%; 25-64 a: 92+24, SBI 25% ; >65 a:108+30, SBI 17%. Fueron estadísticamente significativas las diferencias entre los distintos grupos etáreos en las mujeres. Entre los hombres hubo diferencias entre los >24 y los 25-64. Se detectó SBI en el 17% del total, correspondiendo el 62% a mujeres. Conclusiones: El TTOC puede estar influenciado por el sexo, edad y la presencia del SBI en los sujetos, lo que resulta útil en la interpretación de los resultados en las distintas patologías.

American Journal of Gastroenterology 2004, 1633-36.

CON: Surveillance for Ulcerative Colitis-Associated Cancer: Time to Change the Endoscopy and Microscopy.

Dissuading gastroenterologists from performing endoscopy is like asking a stockbroker not bid. Convincing pathologists that conventional histology is primitive and too insensitive and unreliable for predicting risk of colitis-associated cancer is like questioning hallowed dogma. Notwithstanding, it is difficult to escape the inconvenient conclusion that colonoscopic surveillance with reliance on light microscopic interpretation of biopsy material is seriously suspect and adequate to justify subjecting patients to annual or biennial procedures.

With limited health-care resources, it is reasonable to question whether the effort and expense involved with regular surveillance colonoscopy

could be better deployed elsewhere. Regrettably, for many clinicians, this aspects of current clinical practice is driven, in part, by medicolegal considerations. None would contest that long-standing ulcerative colitis is associated with increased with and increased risk of colorectal cancer. The level of risk is incremental with increased disease duration, severity, and extent of disease⁽¹⁻⁵⁾, and may also be adversely influenced by the presence of sclerosing cholangitis⁽⁶⁾, a positive family history of sporadic colorectal cancer^(7,8), and backwash ileitis⁽⁹⁾. While prophylactic colectomy is the only certain method of avoiding progression to colorectal cancer, this is seldom an attractive option, Therefore, the management of cancer risk in patients with colitis depends on surveillance colonoscopy.

Un consenso latinoamericano sobre el síndrome del intestino irritable

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Introducción: Generalidades: El propósito de este artículo es presentar una actualización consensuada de múltiples autores latinoamericanos sobre la

prevalencia, fisiopatológica, diagnóstico y tratamiento del síndrome del intestino irritable (SII) en adultos. Si bien el SII es un cuadro de alta prevalencia en todo el mundo y se han publicado estudios de diversas regiones⁽¹⁾, en este artículo se hará hincapié en aspectos que pueden caracterizar la presentación de la enfermedad en la población de pacientes adultos latinoamericanos.

El método utilizado ha sido el siguiente: los autores se reunieron de mayo a noviembre de 2003, se asignaron los temas y hubo discusión hasta llegar a un consenso entre los autores.

Los conceptos que se presentan se basan en evidencias, ya sea la bibliografía mundial más reciente como de las publicaciones latinoamericanas indexadas pertinentes. Los niveles de evidencia que darán base a los grados de recomendación se señalan en la tabla 1.

Tabla 1

Niveles de evidencia

Nivel I: basados en ensayos aleatorizados, controlados con valores de $p < 0.05$, con muestras de tamaño suficiente y método apropiados.

Nivel II: basados en ensayos aleatorizados, controlados, con valores de $p > 0.005$, y ya sea con tamaño insuficiente de la muestra o métodos inapropiados.

Nivel III: basados en ensayos no aleatorizados con controles históricos.

Nivel IV: basados en ensayos no aleatorizados con controles históricos.

Nivel V: basados en estudios de casos

Grados de recomendación

Grado A: basados en evidencias de nivel I

Grado B: apoyados por evidencias de nivel II

Grado C: apoyados por evidencias de niveles III y IV

Definición: Si fueron Manning et al⁽²⁾ los precursores en el uso de un criterio diagnóstico clínico para plantear de forma positiva el SII, para este trabajo

adoptaremos el criterio de SII acordado en la reunión de Roma II(3), el cual ha llegado a tener aceptación universal. El SII también se conoce en Latinoamérica como "colon irritable", "colon espástico", "colitis nerviosa", "colitis mucosa", entre otras denominaciones.

El SII se caracteriza por malestar o dolor abdominal crónico, recurrente, asociado a alteraciones de la evacuación intestinal, ya sea diarrea, estreñimiento o alternancia en estas alteraciones sin evidencias de daño morfológico o bioquímico en el tubo digestivo y con un examen físico normal. Para satisfacer el criterio de cronicidad, los síntomas deben estar presentes durante 12 semanas en los 12 meses precedentes, aunque no es necesario que sean consecutivas. No debe haber síntomas o signos de alarma como molestias nocturnas que despiertan al paciente, hemorragia rectal, pérdida consistente de peso, fiebre, anemia, anomalidades en el examen físico o de laboratorio habitual.

Clin Sci (Lond). 2004 Mar;106(3):261-8

Oxidative stress-related parameters in the liver of non-alcoholic fatty liver disease patients.

Videla LA, Rodrigo R, Orellana M, Fernandez V, Tapia G, Quinones L, Varela N, Contreras J, Lazarte R, Csendes A, Rojas J, Maluenda F, Burdiles P, Diaz JC, Smok G, Thielemann L, Poniachik J.
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Oxidative stress is implicated in the pathogenesis of non-alcoholic fatty liver disease (NAFLD). In the present study, hepatic and plasma oxidative stress-related parameters were measured and correlated with clinical and histological findings in 31 NAFLD patients showing increased body mass index. Liver protein carbonyl content was enhanced by 403% in patients with steatosis (n=15) compared with control values (n=12), whereas glutathione content, superoxide dismutase (SOD) activity and the ferric reducing ability of plasma (FRAP) were decreased by 57%, 48% and 21% (P<0.05) respectively. No changes in microsomal p-nitrophenol hydroxylation and the total content of cytochrome P450 (CYP) or

CYP2E1 were observed. Patients with steatohepatitis (n=16) exhibited protein carbonyl content comparable with that of controls, whereas glutathione content, SOD and catalase activities were decreased by 27%, 64% and 48% (P<0.05). In addition, FRAP values in patients with steatohepatitis were reduced by 33% and 15% (P<0.05) when compared with controls and patients with steatosis respectively, whereas p-nitrophenol hydroxylation (52%) and CYP2E1 content (142%) were significantly increased (P<0.05) compared with controls. It is concluded that oxidative stress is developed in the liver of NAFLD patients with steatosis and is exacerbated further in patients with steatohepatitis, which is associated with CYP2E1 induction. Substantial protein oxidation is followed by proteolysis of the modified proteins, which may explain the co-existence of a diminished antioxidant capacity and protein oxidation in the liver of patients with steatohepatitis.

Antioxid Redox Signal. 2004 Apr;6(2):471-80.

Effects of acute gamma-hexachlorocyclohexane intoxication in relation to the redox regulation of nuclear factor-kappaB, cytokine gene expression, and liver injury in the rat.

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Gamma-Hexachlorocyclohexane-induced hepatotoxicity is associated with oxidative stress. We tested the hypothesis that gamma-hexachlorocyclohexane triggers the redox activation of nuclear factor-kappaB (NF-kappaB), leading to proinflammatory cytokine expression. Liver NF-kappaB activation (electrophoretic mobility shift assay), tumor necrosis factor-alpha (TNF-alpha) and interleukin-1alpha (IL-1alpha) mRNA expression (reverse transcription-polymerase chain reaction), and their serum levels (enzyme-linked immunosorbent assay) were measured at different times after gamma-hexachlorocyclohexane treatment (50 mg/kg). The relationship between these and hepatic O(2) uptake, glutathione

and protein carbonyl levels, and sinusoidal lactate dehydrogenase (LDH) efflux in liver perfusion studies was determined. gamma-Hexachlorocyclohexane increased liver NF-kappaB DNA binding at 14-22 h after treatment, concomitantly with significant glutathione depletion and an increase in the rate of O(2) consumption, the content of protein carbonyls, and the sinusoidal LDH efflux. In these conditions, the expression of TNF-alpha and IL-1alpha is enhanced, with maximal increases in their respective mRNA content and serum levels of the cytokines being elicited at 18 h after gamma-hexachlorocyclohexane treatment. All these changes are suppressed by the administration of alpha-tocopherol (100 mg/kg) or the Kupffer cell inactivator gadolinium chloride (10 mg/kg) prior to gamma-hexachlorocyclohexane. gamma-Hexachlorocyclohexane-induced TNF-alpha levels in serum are suppressed by pretreatment with an antisense oligonucleotide (ASO TJU-2755; daily doses of 10 mg/kg for 2 days) targeting the primary transcript for the cytokine, whereas those of IL-1alpha are not modified. It is concluded that gamma-hexachlorocyclohexane-induced liver oxidative stress triggers the DNA binding activity of NF-kappaB, with the consequent increase in the expression of NF-kappaB-dependent genes for TNF-alpha and for IL-1alpha, factors that may mediate the hepatotoxicity of the insecticide.

Free Radic Biol Med. 2004 Nov 1;37(9):1499-507.

Oxidative stress and depletion of hepatic long-chain polyunsaturated fatty acids may contribute to nonalcoholic fatty liver disease.

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Human nonalcoholic fatty liver disease (NAFLD) associated with obesity is characterized by depletion of hepatic n-3 long-chain polyunsaturated fatty acids (LCPUFA), with lower LCPUFA product/precursor ratios and higher 18:1n-9 trans levels in adipose tissue, both in patients with steatosis and in those

with steatohepatitis. These changes point to modification of gene expression, with decreased fatty acid oxidation and triacylglycerol export and enhanced lipid synthesis, thereby leading to fat accumulation in the liver. Changes in oxidative stress-related parameters indicate a moderate enhancement in the pro-oxidant status of the liver in steatosis, which is further exacerbated in steatohepatitis. It is proposed that oxidative stress plays a dual role in NAFLD by contributing to steatosis due to higher peroxidation of LCPUFA, in addition to defective fatty acid desaturation and diet imbalance, and by promoting progression of steatosis to steatohepatitis, features that might involve changes in the activity of transcriptional mediators.

Genética

VII Annual National Coalition for Health Professional Education in Genetics (NCHPEG) / Genetic Resources on the Web (GROW) Meeting; Bethesda, Maryland, January 29 – 30.

Genetics Education for the Public and Health-Care Professionals in Latin America.

Castillo Taucher S, Frias J, Penchaszadeh V.

A number of Latin American countries are experiencing an epidemiological transition, with a relative rise in genetic disorders as causes of morbidity and mortality. Health care resources are increasingly addressing the impact of this phenomenon, with the aim of improving health and quality of life of individuals with congenital and genetic conditions. The appropriate integration of genetic services and supporting genomic technologies into health care will require extensive education of the public and of a broad variety of health professionals. Because of their good health indices and the efficiency of their health care systems, we have identified Chile and Costa Rica as countries suitable for a pilot project aimed at enhancing genetics knowledge among the public and their health-care providers, with emphasis on the needs of vulnerable populations. Our primary objectives are to: (a) develop instructional modules to educate the public in these countries about genetics and its importance in di-

sease prevention, health care delivery and health promotion; (b) develop instructional modules to promote genetics education among different groups of primary health-care professionals; and (c) promote the development of grass-roots support groups among the lay public to provide assistance to individuals and families and to reinforce the educational messages about genetics and reproductive health in particular, and maternal and child health more generally. We are working with relevant professional societies and community organizations from each country to determine the appropriate educational content emphasis for genetics and genomics within the context of health. A first meeting to address these issues will be held in Santiago, Chile, on November 20-21, 2003 to draft a plan for the development of the pilot projects. Participants will include representatives of professional societies, universities, government agencies, parent/patient organizations and community base organizations, as well as local experts in education, social sciences, medicine, and public health. The most appropriate delivery mechanisms for the instructional modules will be identified and will probably include a mix of on-line instruction, educational manuals, photo- and tele-novellas, and other teaching resources. These modules will be culturally competent and designed to fit both the educational level of the target audiences and the technology available in the selected countries. In addition, we will work with local experts and representatives of the public to establish a dialogue on ethical, legal, and social issues related to the application of genetics knowledge and genomic techniques in the individual country. Moreover, we will work with local agencies to institute genetics-related public policy, as appropriate, to advance advocacy for the use of genetics to improve maternal and child health, surveillance of genetic contributions to morbidity and mortality, and the use of information systems to enhance advocacy and surveillance.

36ª Reunión Anual ECLAMC, Angra dos Reis, Rio de Janeiro, Brasil; 7 al 12 de noviembre

Síndrome de Langer Giedion con t(17;19)(q12;p13)pat

Pardo A, Aravena T, Franco G, Castillo S.

Motivo de consulta a genética: Derivada por su pediatra por facie con dismorfias: hipertelorismo ocular, nariz prominente, micrognatia, orejas bajas.

Madre de 28 años sana, dueña de casa, padre de 28 años sano, maestro de cocina. Tiene un hermano varón sano de 8 años.

PN: 3250 g(p50), IN: 48 cm(p50). CC: 33,5 cm(p50). Apgar: 9/9. Desarrollo psicomotor adecuado.

Primer examen por genética a los 3 meses 24 días: Peso: 5650 g(p50). Talla: 60,5 cm(p50). CC: 39 cm(p50).

Dolicocefalia, ojos grandes expresivos, nariz bulbosa, columela corta, filtrum largo, boca grande, labio superior fino, micrognatia, segundo dedo superpuesto sobre el tercero y el quinto dedo sobre el cuarto.

Clinobraquifalanga, uñas displásicas, fetal pads.

Control a los 2 años 5 meses:

Exostosis del tercio proximal del peroné, tercio distal del fémur y tercio distal de la tibia derechos. Hipertelorismo mamario. DSM: no habla, atiende a órdenes, marcha a los 14 meses.

Cariograma de la paciente: 46, XX, t (17;19)(q12;p13). Se solicita cariógrama a los padres.

Rx de mano: pulgares en flexión a derecha, clinodactilia de los 5 dedos.

RX de pies: normal.

TAC cerebral: normal

Audiometría: debe repetirla.

Control a los 3 años 7 meses:

Retardo de lenguaje. Aumento de volumen de lesiones óseas en igual ubicación.

Cariograma del padre 46 XY y de la madre 46,XX.

Pendiente cirugía para resección de la lesión escapular y la distal de la pierna derecha.

DX: Síndrome Tricorinofalángico / Exostosis Múltiple

36ª Reunión Anual ECLAMC, Angra dos Reis, Rio de Janeiro, Brasil; 7 al 12 de noviembre

Robinow syndrome

Lay-Son G, Castillo S.

MUV is a nine month-old boy, the second child of healthy, young and unrelated parents.

The mother and two maternal sisters are short statured. Mother's height is 146 cm (4'9"), and she has a cephalic perimeter of 55 cm (21.7 in). His older sister has normal height, she had a surgery for pneumatocele.

Pregnancy with gestational diabetes. Caesarean delivery at term, due to previous caesarean section. Birthweight 2800 g (10th percentile) and birthlength 47 cm (18 1/2 in) (10th percentile), with a cephalic perimeter of 36.5 cm (14.2 in) (>50th percentile), and an Apgar score: 9/9. He was born with two greyish teeth.

Due to macrocephaly sequentially an encephalic Ultrasound Scan, Computed Tomography and MRI were performed, all turned out normal.

On physical examination at three months age, it stands out macrocephaly (CC: 43.5; 95th percentile) with a height of 56 cm (< 5th percentile), large anterior fontanelle, coarse facial features, prominent eyes, hypertelorism, depressed nasal bridge, anteverted nares, infra-orbital creases, rotated ears and inverted upper lip. Clavicles difficult to palpate. At the abdominal exploration there is a large spleen and liver. Normal male genitalia.

Clinically, he has symmetric rhizomelic short limbs.

In the skin there are small patches of hypertrichosis in the back and upper limbs. Abundant subcutaneous fat in limbs.

Complementary tests

X-rays of the whole skeleton, within normal limits.

Abdominal ultrasound scan: spleen of 7 cm, with normal size of the liver.

Hemogram: mild anemia.

Second degree gastro-oesophageal reflux disease.

Probable diagnosis: Robinow syndrome

Edad	Talla cms.	CC cms.	Peso grs.
3 meses	60,5	39	5650
10 meses	71	43	8100
2 años 5 meses	88	-	11600
3 años 7 meses	94	46	13400

Genetic Services in Chile

Castillo Taucher S.

Demographic changes in Chile have positioned congenital malformations as a major cause of infant morbidity and mortality. At the same time, medical genetics has become increasingly important in relation to the diagnosis and management of individuals with birth defects and hereditary conditions as well as in the study of pathological pregnancies and reproductive problems. In addition, recent advances in genomic research have expanded and continue to expand the relevance of medical genetics to all medical specialties.

This review summarizes the clinical genetics resources currently available in Chile; the teaching of genetics in undergraduate, graduate, and continued medical education; relevant interventions that have taken place in our country, such as the expansion of the neonatal screening program and the initiation of a folic acid fortification program; and recent efforts to enhance population access to clinical genetics services.

(Key words: genetic services, neonatal screening, folic acid, teledysmorphology)

Imagenología

Intracranial Vascular Malformations. Aspects Seen Optimized Angiographic Sequence.

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Introduction: The evaluation of intracranial vascular malformations, for many years was determined by digital subtraction angiography. Nevertheless, with the introduction of Magnetic Resonance, the possibility has arisen of making this evaluation, without the need of using ionizing radiation. In spite of this, the use of sequences like TOF or 2D and 3D PC, are subject to the presence of artifacts or limitations that reduce their diagnostic capability.

At this moment, a modified contrasted angiographic sequence is in study at the Center of Imagenology of the clinical Hospital of the University of Chile, with optimization of K space filling, that allows better spatial resolution, without flow artifacts and with shorter acquisition times versus TOF sequences.

Objective: We present cases of intracranial vascular malformations encountered during the course of this study (arterio-venous malformations, aneurism, and venous angiomas) in its comparative sequences, as preliminary results.

Materials and methods: During the accomplishment of this comparative study of modified angiographic sequence with use of Gadolinium and TOF, made in a MAGNETIC Resonator Siemens Magnetom 1,5 Symphony Tesla, with gradient of 20 Mt/m, in progress at this moment in our center, intracranial vascular malformations have been encountered, which compose this presentation. Review of current literature was also performed in MEDLINE and LILACS databases.

Results: Intracranial vascular malformations appeared in this study of comparative TOF sequences and modified contrasted angiographic sequence, and revision of literature.

Conclusion: The angiographic sequence currently in study appears to provide more anatomical information than TOF sequences, thus being of greater utility and diagnostic capabilities. This hypothesis is at this moment being evaluated in a current study.

Communication in the radiology department: patients and radiologists

Ortega D.

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Medical - patient communication and confidence is currently deteriorated. We know its causes.

As radiologists, we need to act: modifying educational programs to include abilities for effective doctor-patient communication that includes bad news delivery and negotiation skills; to train and supervise our personnel for efficient and humanized attention; increase medical encounters with patients.

Our goal must be to have a comfortable patient who is the center of our concerns. With no doubts, the result we will have, besides better quality of radiological attention, in the long term is an improvement in effective communication with possibilities to recover patient confidence and thus to preserve the future of radiology and radiologists.

Radiology Society North America; Diciembre 2004, Chicago.

Mammographic Classification of the Suspicious Microcalcifications and its histologic correlation

Neira P, Aguirre B, Ortega D, Rodriguez J, Moyano L.

Purpose: To correlate the mammographic features of suspicious microcalcifications with the histological result and their ability to predict malignancy and its histological grade.

Method and materials: A prospective correlation was performed of 64 consecutive patients with suspicious microcalcifications who underwent a surgical biopsy between January 2002 and October 2002. Four patients had bilateral calcifications which were studied separately. Two independent breast imaging radiologists classified microcalcifications in 3 categories, according to the degree of mammographic suspicion: low suspicion (amorphous), intermediate suspicion (pleomorphic), high suspicion (fine linear and branching). Unlike BIRADS classification, we divided category 4 in two subgroups.

Results: Sixty-eight histological diagnoses of surgical specimens were obtained. Thirty-five cases were classified in the low suspicion category (51,4%). Of these, 24 (68,6%) resulted in benign lesions, 6 (17,1%) resulted in high risk lesions and 5 (14,3%) resulted in malignant. Most of the malignant lesions had a low histological grade (80%), the remainder in the intermediate group of suspicion. Of these, 16 (57,1%) were benign lesions and 12 (42,9%) were malignant. The histological grade was low in 25%, intermediate in 41,7%, high grade in 25% and one case of lymphangitis carcinomatosa (8,3%) in this subgroup. Five cases (7,3%) were classified in the high suspicious subgroup. All of them resulted in malignant and their histological grade was moderate to high.

Conclusions: There is a significant difference in the positive predictive value risk for malignancy of the low suspicious category compared to the intermediate suspicious category. All the cases included in the highly suspicious category were malignant. As the degree of suspicion of microcalcifications increased, the nuclear grade also increased. (JR: bioestadístico LM: Pathologist PN, B.A.D.O: Read Mammographics and classified microcalcifications PN: Staff in charge of this project. She designed the work).

American Society of Neuroradiology, Noviembre.

Manual triggered elliptic centric ordering (mateco) Angiographic Sequence For Prospective comparison with 3d Tof Mr Venography for evaluation of intracranial dural sinuses.

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Introduction: The evaluation of intracranial vascular malformations, for many years was determined by digital subtraction angiography. Nevertheless, with the introduction of Magnetic Resonance, the possibility has arisen of making this evaluation, without the need of using ionizing radiation. In spite of this, the use of sequences like TOF or 2D and 3D PC, are subject to presence of artifacts or limitations that reduce their diagnostic capability. MaTECO is an angiographic sequence with manual triggering without the use of injection pump, which allows this technique to be available for many institutions that do not have these expensive items. This enables the results of optimal diagnostic gadolinium-enhanced three-dimensional manual-triggered elliptic centric-ordered (MaTECO) magnetic resonance (MR) venography for imaging of the intracranial venous system, compared to two-dimensional time-of-flight (TOF) MR venography.

Materials and methods: MaTECO MR venography was performed in 52 patients, who also underwent TOF for imaging of the intracranial venous system. 15 predefined venous structures were evaluated on all venograms by 4 neuroradiologists. Visualization of

venous structures was defined as completely visible (including clearly pathologic), partially visible, or not visible. Readers were also asked to compare the visibility of these predefined structures on MaTECO and TOF MR venograms, when available.

Results: Of the 50 patients, 4 had dural venous sinus disease. Of the remaining 46 healthy patients, 35 underwent both MaTECO and TOF MR venography and 11 underwent MaTECO MR venograms obtained in healthy patients, visibility of the 15 predefined venous structures was better in most of the evaluations, with figures under study under date.

Conclusions: MaTECO MR venography provides high-quality images of the intracranial venous anatomy and was superior to TOF MR venography for better and complete visibility venous structures.

Soft Tissue Tumors: Ultrasound-Histopathological Correlation

Whittle S, Baldasare G, González S, Mac Kinnon J, Seguel S, Niedmann J.

Purpose: Soft tissue tumors are mostly palpable lesions. A small nodule is the most frequent clinical presentation. The high spatial resolution of ultrasound (US) allows an adequate representation of these lesions. The purpose is to correlate the findings of ultrasound with the histological results.

Methods and materials: A case series of 173 dermatological soft tissue masses with US are analyzed, 90% less than 25 mm. All US exams were performed with 10-12 MHz transducer and pad gel. Solid or cystic nature, anatomic layer involved and the correlation between US and histological diagnosis were analyzed.

Results: The tumor location was diagnosed by US, corresponding: 15 were dermal masses, 89 hypodermal, 26 dermal-hypodermal, 26 fascioaponeurotic, 15 muscular and 2 cases have more than two layers involved. In 82% of the cases (141/173) the US diagnosis was correct, in 9% indeterminate and 9% incorrect. In those cases where US was able to recognize typical patterns the final diagnosis was pilomatricoma, lipoma, hemangioma, infundibular cyst, trichilemmal cyst. Solid or cystic nature were detected correctly by US in 167/173 lesions (96,5%), and incorrect in 6/173 (3,5%).

Conclusions: Skin ultrasonography may be a valuable tool in the assessment of dermatological lesions under 25 mm. A well description of the different skin layers allows to recognize the depth and location of a soft tissue mass. Knowledge of typical US patterns may triage lesions improving the differential diagnosis.

Radiology. 2004 Aug;232(2):466-73. Epub 2004 Jun 23.

Hyperacute ischemic stroke: middle cerebral artery susceptibility sign at echo-planar gradient-echo MR imaging.

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Purpose: To evaluate the accuracy of echo-planar T2*-weighted magnetic resonance (MR) sequences in detection of acute middle cerebral artery (MCA) or internal carotid artery (ICA) thrombotic occlusion.

MATERIALS AND METHODS: Forty-two consecutive patients with stroke involving the MCA territory underwent MR imaging within 6 hours after clinical onset. MR examination included echo-planar T2*-weighted, diffusion-weighted (DW), and perfusion-weighted (PW) imaging and MR angiography. Presence or absence of the susceptibility sign on echo-planar T2*-weighted images, which is indicative of acute thrombotic occlusion involving MCA or ICA, was assessed in consensus by two observers blinded to clinical information and other MR imaging data. Differences in lesion volume on DW and PW images between patients with and those without the susceptibility sign were evaluated with the Mann-Whitney test. $P < .05$ was considered to indicate a significant difference. RESULTS: Thirty patients (71%) had a positive susceptibility sign that correlated with MCA or ICA occlusion at MR angiography in all cases (sensitivity, 83%; specificity, 100%). Mean lesion volume on PW images was higher in patients with a positive susceptibility sign ($P = .01$), but no significant differences were found in mean lesion volume on DW images. Cases in which the susceptibility sign was identified proximal to MCA

divisional bifurcation (27 patients) showed a mean perfusion deficit of 83.9% of the total MCA territory (range, 50%-100%). CONCLUSION: Presence of the susceptibility sign proximal to MCA bifurcation provides fast and accurate detection of acute proximal MCA or ICA thrombotic occlusion. Copyright RSNA, 2004

Laboratorio Clínico

XVII Congreso Latinoamericano de Patología Clínica Determinación de valores de Péptido Natriurético B en población chilena normal con insuficiencia cardiaca.

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Introducción. En la actualidad, se dispone de nuevos exámenes de laboratorio, que pueden ayudar a evaluar el riesgo de patologías cardiovasculares, Ejemplo de ello, es el péptido natriurético cerebral (PNP), el cuál se asocia con la evolución de la capacidad funcional cardiaca, en especial con un valor diagnóstico y predictivo en la insuficiencia cardiaca.

Este metabolito se sintetiza como preprohormona, pudiéndose detectar en el plasma, el fragmento amino terminal NTproBNP.

Objetivo: Establecer los valores de referencia de NTproBNP en población sana chilena y evaluar la relación entre los niveles de NTproBNP y la capacidad funcional en pacientes ambulatorios portadores de insuficiencia cardiaca compensada.

Material y métodos muestra para los valores de referencia: Sueros de donantes del Banco de Sangre del Hospital Clínico de la Universidad de Chile, menores de 50 años, sin antecedentes mórbidos y con tamizaje sexológico negativo.

Muestras de pacientes: Portadores de insuficiencia cardiaca compensada en control en el policlinico de cardiología del Hospital Clínico de la Universidad de Chile durante el primer semestre del año 2003. Se evaluó la capacidad funcional según la NYHA y la fracción de eyección por método ecocardiográfico.

Cuantificación de NTproBNP: Inmunoensayo sándwich por electroquimioluminiscencia en analizador Roche Elecsys 2010.

Valores de referencia	Rango I	NTproBNP (pg/ml)	
		Promedio + DS	CV
Hombre	0-37,6	16.37+10.64	0.97
Mujeres	0-64,8	28.90+17.95	0.94

En el caso de los pacientes, las etiologías de la insuficiencia cardiaca fueron cardiopatía isquémica, hipertensiva, valvular y miocardiopatías. La relación de NTproBNP y CF se describe en la siguiente tabla:

CF	N	%	Promedio	NTproBNP (pg/ml)
I	17	28.82%		921,19
II	21	36.94%		2.445,80
III	12	20.96%		5.629,33
IV	7	12.28%		16.794,00

Conclusiones: Los valores de referencia para NTproBNP, nos permitirá usar este parámetro como factor de riesgo cardiovascular en la población chilena.

Los valores normales obtenidos para la población chilena de ambos parámetros son concordantes con los descritos en la literatura.

Existe una diferencia significativa entre los valores de referencia de hombres y mujeres para NTproBNP. Los cambios en las concentraciones plasmáticas de BNP están significativamente relacionadas con el grado de insuficiencia cardiaca, los valores que se encuentran están por sobre el valor normal, lo que hace de este test un buen predictor de insuficiencia cardiaca, reduciendo la cantidad de exámenes a realizar al paciente en forma rápida y sencilla.

Medicina Nuclear

Med Sci Monit. 2003 Aug; 9(8): CR363-8.

Could the [14C]urea breath test be proposed as a 'gold standard' for detection of Helicobacter pylori infection?

Gonzalez P, Galleguillos C, Massardo T, Rivera M, Morales A, Smok G, Moyano L, Pimentel C, Alay R, Otárola S. Nuclear Medicine, Gastroenterology and Pathology Centers, University of Chile Clinical Hospital, Santiago, Chile.

Background: The urea breath test (UBT) with a microdose of [14C] is a non-invasive and simple method for the assessment of gastric infection by Helicobacter pylori. The aim of this study was to compare the [14C]UBT with invasive methods widely used for assessment of H. pylori gastric infection, including histology with hematoxylin-eosin staining, the gastric smear technique using Giemsa staining, and the biopsy urease test. **Material/Methods:** We evaluated patients referred to our clinic for elective upper gastrointestinal endoscopy excluding those on antibiotics and/or bismuth during the previous 4 weeks, patients on H⁺ blockers or H₂ antihistamines during the previous 7 days, pregnant women, and patients who had undergone gastric surgery or had bleeding disorders. Eighty-nine patients ranging in age from 18-75 years were included in the final study population, 61 women and 28 men (mean age: 43(15 years)). **Results:** When histology alone was considered as the reference standard, sensitivity for the [14 C]UBT was 94%, with a specificity of 37%; when the Giemsa technique, sensitivity was 95%, and specificity 35%; and when the biopsy urease test, sensitivity was 94% and specificity 45%. With two or more invasive techniques together considered as the reference standard, the [14C]UBT had a sensitivity of 95%, with a specificity of 44%. **Conclusions:** [14C]UBT is an objective and reproducible technique, capable of sampling the whole gastric mucosa. It shows high sensitivity, but low specificity, which could be explained by limited gastric sampling plus subjective interpretation in the invasive techniques that are currently used as gold standard.

Ann Nucl Med. 2004 Apr;18(2):97-103.

The predictive value of 201Tl rest-redistribution and 18F-fluorodeoxyglucose SPECT for wall motion recovery after recent reperfused myocardial infarction.

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201Tl and 18F-FDG are useful for acute myocardial infarction (MI) assessment. The goal of this study was to compare their predictive value for wall motion recovery in the culprit area after a recent reperfused MI using SPECT technique. **METHODS:** Forty-one patients (mean age: 56 +/- 12 years) were included, 81% of them male; all were studied within 1-24 days post MI. They underwent angioplasty in 27 cases (12 primary); bypass grafting in 10 cases and successful thrombolysis in 4. SPECT 201Tl injected at rest and redistribution (R-R) and also 18F-FDG, were performed on different days. Processed tomograms were interpreted blinded to clinical or angiographic data. Segmental wall motion assessed with echocardiography at baseline was compared with the 3 month follow up. **RESULTS:** Sensitivity [Confidence Interval] for 201Tl R-R was 74.6% [60.5-84.5], for FDG it was 82.1% [70.8-90.4]; specificities were 73% [64.3-80.5] and 54.8% [45.6-63.7], respectively. 18F-FDG tended to be more sensitive than 201Tl R-R, but the latter was more specific (p < 0.0004). Both 201Tl RR and 18F-FDG presented high negative predictive value (p: ns). **CONCLUSION:** In recent MI, SPECT 201Tl R-R is a valuable and widely available technique for viability detection, with similar sensitivity and significant better specificity than SPECT 18F-FDG.

Neurología

Neurology. 2004 Mar 9;62(5):831-2.

Pramipexole for the treatment of uremic restless legs in patients undergoing hemodialysis

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Restless legs syndrome (RLS) is common and severe in uremic patients⁽¹⁾. The restoration of normal kidney function by a successful transplant may resolve uremic RLS⁽¹⁾, but unfortunately this is not an option for all patients. Levodopa has been used with success⁽²⁾, but it is associated with rebound and increased symptoms. Dopamine agonists are a useful alternative in severe RLS. Pramipexole has been found effective in controlled studies in idiopathic RLS⁽³⁾, but, to our knowledge, it has not been used in uremic RLS. We describe an experience using pramipexole in uremic RLS in patients undergoing dialysis.

Burns. 2004 Jun;30(4):348-56.

Mortality trends from burn injuries in Chile: 1954-1999.

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Objectives: To study mortality trends due to burns in Chile. Methods: Correlation, and descriptive study. Death reports from the Annals of Demography from 1954 to 1999, were analyzed and standardized rates of mortality by etiology, age and sex were calculated using regression models (Prais-Winsten) for each of them. Spearman's Rho test was used to show correlations (STATA 7.0). RESULTS: Linear reduction in burns rate (7.03-0.53) was found mainly because of a reduction in the pediatric group (15.3-2.4). The rate in the elder group showed a significant increase (4.28-11.03). The mortality rate due to chemical burns remained stable (1.4/1,000,000) and electrical burns showed an important increase since the 1990s

(0.4-5.0/1,000,000). Conclusions: The decrease of the mortality rates due to burns, is mainly due to a large decrease in the pediatric group rates. Rates remained relatively stable for adults and increased in elders. The findings set a challenge to improve prevention campaigns and professional assessment and management in adults and elders.

Biol Res. 2004;37(4):539-52.

Redox regulation of RyR-mediated Ca²⁺ release in muscle and neurons.

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Changes in the redox state of the intracellular ryanodine receptor/Ca²⁺ release channels of skeletal and cardiac muscle or brain cortex neurons affect their activity. In particular, agents that oxidize or alkylate free SH residues of the channel protein strongly enhance Ca²⁺-induced Ca²⁺ release, whereas reducing agents have the opposite effects. We will discuss here how modifications of highly reactive cysteine residues by endogenous redox agents or cellular redox state influence RyR channel activation by Ca²⁺ and ATP or inhibition by Mg²⁺. Possible physiological and pathological implications of these results on cellular Ca²⁺ signaling will be addressed as well.

Operaciones

XXII Congreso de la Sociedad Española de Calidad Asistencial, 5-8 de octubre de 2004, Las Palmas de Gran Canaria.

Monitorización de la calidad asistencial basada en la gestión por procesos

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Métodos: El sistema implementado por el Hospital Clínico de la Universidad de Chile, se diseñó teniendo

do como base el modelo de gestión por procesos. La información fue organizada de acuerdo a las seis áreas claves. En primer lugar se consideraron los procesos claves de la organización: Atención Hospitalizada, Actividad Quirúrgica y Atención Ambulatoria. En un cuarto apartado la información referente a la Satisfacción Usuaría. En un quinto grupo se reunieron los indicadores de Calidad Técnica. Finalmente en un sexto grupo se incluyeron los indicadores de Cliente Interno. La primera fase contempló la definición y seguimiento de los indicadores de procesos y de satisfacción. En el establecimiento de estándares, se optó por una modalidad mixta: estándares nacionales y metas institucionales. En una segunda fase, se construyeron los indicadores técnicos y de cliente interno, los cuales permitieron definir los compromisos de calidad, basados en objetivos y metas institucionales que fueron traducidos a nivel de centros de responsabilidad.

Resultados: Los resultados se han repostado en cuatro semestres consecutivos a los servicios clínicos, administrativos como la Dirección, para el diseño de las intervenciones pertinentes. A partir del último reporte emitido, se destacan los siguientes resultados: Porcentaje de Egresados mejorados: 95%; Satisfacción Usuaría 82%-95%; Suspensión Operatoria: 14%; Completitud Protocolo Quirúrgico: 93%; Completitud Epicrisis: 75%. La publicación interna de resultados y su acceso a través de Intranet ha generado importantes efectos: la discusión local al interior de los centros de responsabilidad, y el efecto de "control social" entre los servicios comparables. El sistema permitió además de la formalización de compromisos locales de calidad que se están monitorizando desde el año 2003.

Conclusiones: El enfoque de gestión por procesos ha permitido: generar información de apoyo a la toma de decisiones, evaluar el avance del plan de calidad de la organización en base a un conjunto, finito y concentrado de indicadores, siendo parte además del cuadro de mando gerencial de la institución. Las proyecciones futuras del sistema prevén que dicho sistema pueda ser accesado y consultado en forma remota, descentralizado progresivamente tanto los ingresos de información como los resultados y reportes de gestión.

Psiquiatría

Curr Opin Psychiatry 2004; 15: 387-90

Impact of legal reform on the practice of forensic psychiatry in Chile

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Purpose of review: Codes of criminal procedure are being modified in Latin American countries as part of a movement of legal reform to make justice more accessible and this application of the law more transparent in these countries. This review summarizes the impact of that process in the practices of forensic psychiatry in Chile.

Recent findings: While existing data deal with the general impact that legal reform has had in Chile, a search of Medline and Embase databases found no published study analyzing the influence of this type of legal reform on the practice of forensic psychiatry.

Summary: The paper describes the penal system in Chile, presents general sociodemographic information, and describes characteristics of the work of expert witnesses within the new system. The penal reform and its impacts on forensic psychiatry have generated an increased awareness of the field and given impetus to academic development of the study and research into forensic psychiatric issues.

Keywords: Chile, penal reform, criminal code, forensic psychiatry, expert witness.

Comparing sex inequalities in common affective disorders across countries: Great Britain and Chile

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Most studies throughout the world have found that women report more psychological symptoms than men. Much less is known about possible variation between countries in the magnitude of these sex differences of the factors contributing to the increase of risk among women in countries with different levels of the development. This study aimed to compare sex differences for common affective disorders (CAD) between Great Britain and Chile based on two large urban cross-sectional psychiatric household surveys that used similar methodology. Women in both countries reported more CAD than men but Chilean women had an increased risk in comparison to their British counterparts, a difference that became larger as symptom severity increased. Of all the main explanatory variables included in the analysis—education, employment status, children at home, marital status, and social support—the only statistically significant interaction that could account for this increased risk was education, with an increasingly larger risk for women with lower levels of educational attainments in Chile compared to Britain. Education is a powerful socioeconomic indicator that is difficult to revert later in life, specially in countries where opportunities for women are less forthcoming, and it might act as a powerful reminder of social entrapment.

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Keywords: Women; Mental disorders; Inequalities; Great Britain; UK; Chile.

Respiratorio

Arch Broncopulmon 2004; 40 (Supl 4): 1-38

La prednisona no reduce la hiperinflación pulmonar dinámica en pacientes con EPOC Estable.

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Introducción: Se desconoce el efecto de la prueba esferoidal sobre la hiperinflación pulmonar dinámica (HPD) en pacientes con EPOC.

Objetivo: Evaluar el efecto de la administración oral de 40 mg diarios de prednisona durante dos semanas sobre la hiperinflación pulmonar en pacientes con EPOC estable.

Métodos: Se estudiaron 32 pacientes, edad (promedio + EEM) 67 + 1 años, VEF1 38+2% teórico, aleatoriamente asignados a recibir prednisona o placebo por 14 días. Se midió al inicio y al final del estudio de espirometría, volúmenes pulmonares y distancia recorrida en 6 minutos (DR6). Los cambios observados durante el estudio en estas variables se analizaron (1) como valores absolutos; (2) como porcentaje del valor teórico; (3) como variables categóricas (respondedores y no respondedores), considerándose respondedor a aquel que obtuvo un aumento mayor o igual a 10% del valor teórico en las variables espirométricas. Los análisis se efectuaron con el test de t para muestras no pareadas y prueba de chi-cuadrado.

Resultados: No hubo diferencias significativas en los cambios espirométricos de ambos grupos, excepto en la CVF que aumentó 10 +3% del teórico en el grupo tratado y sólo a 1+3% en los controles (p=0,05). Al analizar respondedores versus no respondedores, solo dos pacientes de cada grupo mostraron un aumento mayor o igual a 10% en el VEF1, mientras que nueve tratados con prednisona y 2 controles lo hicieron en CVF (p=0,009). En cambio, las respuestas de capacidad inspiratoria, capacidad vital lenta, capacidad residual funcional y DR6 no fueron distintas entre los grupos. **Discusión:** La prueba esteroideal no produjo disminución en la HPD ni en el VEF1 depende también del colapso espiratorio, su aumento aislado no puede interpretarse como una reducción del HPD.

Conclusiones: La prueba esteroideal no redujo la HPD en pacientes con EPOC moderada a grave en etapa estable.

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Reumatología

Scand J Rheumatol. 2004;33(4):228-32.

Tumour necrosis factor-alpha (TNF-alpha) levels and influence of -308 TNF-alpha promoter polymorphism on the responsiveness to infliximab in patients with rheumatoid arthritis.

Cuchacovich M, Ferreira L, Aliste M, Soto L, Cuenca J, Cruzat A, Gatica H, Schiattino I, Perez C, Aguirre A, Salazar-Onfray F, Aguilón JC.

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Objective: To investigate the influence of -308 tumour necrosis factor-alpha (TNF-alpha) promoter polymorphism and circulating TNF-alpha levels in the clinical response to the infliximab treatment in patients with rheumatoid arthritis (RA). **METHODS:** One hundred and thirty-two RA patients were genotyped for TNF-alpha promoter by polymerase-chain reaction restriction fragment-length polymorphism (PCR-RFLP) analysis. Ten patients with the -308 TNF-alpha gene promoter genotype G/A, and 10 with the G/G genotype were selected and received 3 mg/kg of infliximab at Weeks 0, 2, 6, and 14. **Results:** Both groups showed a significant improvement with treatment in all variables studied. Total mean TNF-alpha levels increased significantly with respect to basal levels in most of patients after treatment [probability (p)=0.04]. Only patients from G/A showed a statistically significant correlation between ACR 50 and the increase of TNF-alpha levels (p<0.03). **Conclusión:** A relationship was detected between ACR criteria of improvement and increased circulating TNF-alpha levels in RA patients subjected to anti-TNF-alpha therapy.

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Evaluation of microwave thermotherapy with histopathology, magnetic resonance imaging and temperature mapping.

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Purpose: Interstitial temperature mapping was used to determine the heat field within the prostate by the Coretherm (ProstaLund, Lund, Sweden) transurethral microwave thermotherapy device. Gadolinium enhanced magnetic resonance imaging (MRI) and histopathology were used to determine the extent and pattern of coagulation necrosis following treatment. The cell kill assessment feature of the device was compared with MRI and histopathology. **Materials and methods:** A total of 12 patients were treated, including 5 with adenocarcinoma of the prostate and 7 with benign prostatic hyperplasia. Temperature sensors were inserted from the perineum to map the temperature distribution. The 5 patients with adenocarcinoma underwent prostatectomy and subsequent histopathology 3 to 6 weeks after treatment. MRI and cell kill calculations were performed in all patients. **Results:** Therapeutic temperatures were found in a bowl-like shape with a wide circumference of highest temperatures at the base of the prostate, and decreasing temperature and circumference toward the apex. Tissue necrosis assessed by histopathology, MRI and cell kill calculations overlapped reasonably well in shape and size. Histopathology showed that the prostatic urethra was destroyed by treatment. **CONCLUSIONS:** Coretherm microwave treatment causes significant tissue necrosis of the prostate, bladder neck and urethral mucosa. The cell kill calculation provides an on-line estimate of the amount of necrosis caused during treatment.

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Antibióticos en resección transuretral de próstata de pacientes con bajo riesgo de complicaciones infecciosas: Estudio comparativo prospectivo aleatorio.

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Objectives: To compare the rate of infectious complications using 2 antibiotic schemes in prostatic transurethral resection of the prostate (TUR-P) of patients at low risk, in order to reduce the use of antibiotics in this kind of patients. Secondly, try to weigh the influence of clinical background, intraoperative complications and postoperative outcome on the development of such complications. **Methods:** A comparative, prospective, randomized, open study was designed including 95 patients with sterile urine without indwelling catheter, subjected to TUR-P during one year. Group 1 received cefazolin 1 gr. i.v. preoperative and every 8 hrs. during the first day (3 doses) followed by ciprofloxacin 250 mg. oral every 12 hrs until the catheter was removed (therapeutic dose). Group 2 received cefazolin 1 gr. i.v. preoperative and at 8 hrs postoperative (2 doses) followed by nitrofurantoin 100 mg. oral every night until the catheter was removed (prophylactic dose). Five patients were excluded after randomization (5.3%) and all the remainders completed follow up. **Results:** Ninety patients are analyzed, 45 in each group. Both groups were well matched with regard to clinical background, surgical and postoperative parameters and complications. Fever (axillary temperature equal or over 37.5 degrees C) was present in 2% of Group 1 and 11% of Group 2 ($p = 0.091$). Postoperative early or late bacteriuria (colony count $> 100,000$ CFU/mL) was present in 2% of Group 1 and in 13% of Group 2 ($p = 0.049$). Postoperative urinary infection (bacteriuria + clinical infection) was present in 2% of Group 1 and in 16% of Group 2 ($p = 0.026$). A statistical association was found between fever and postoperative urinary infection in all patients ($p = 0.029$) and between purulent secretion during prostatic tissue

cutting and fever in Group 2 ($p = 0.01$). **Conclusion:** Patients in Group 1 (cefazolin-ciprofloxacin) presented significant less postoperative urinary infection than those in Group 2 (cefazolin-nitrofurantoin) represented by less postoperative bacteriuria frequency. This was possibly due to different antimicrobial activity and dosage of used drugs. Fever was statistically related to postoperative urinary infection.