

Trabajos enviados a Congresos y/o publicados en revistas Internacionales por los profesionales del Hospital Clínico Universidad de Chile durante el año 2001

Interés General

Vesalius 2001; VII, 1, 45-51.

News from member counties: Chile.

Dr. Ricardo Cruz Coke, Director del Museo Nacional de la Medicina, médico del Servicio de Génética del Hospital Clínico Universidad de Chile.

The National Museum of Chilean Medicine (Museo Nacional de la Medicina), University of Chile, Santiago, has recently published a selected catalog of old medical books and colonial manuscripts, collected in the XIX century by Chilean medical doctors returning from their studies in Europe and the Survey of Archives of Colonial Hospitals of the XVI and XVII centuries... (Anales de la Universidad de Chile, Sexta Serie N°12, October 2000, pages 19-78). The collection includes books of Hippocrates, editions by Gardeil (1806), Adams (1849), Littré (1840) and Jones (1923). The Works of Galen edited by Daremberg (1856), The Canon of Avicenna, Latin version of Gerardo de Cremona, Venetiis (1608). The Works of William Harvey, London, 1737. The opera medica omnia of Boerhaave, Venetiis, 1790. And a hundred other medical books of authors from the XVIII and XIX in Latin, French, English and German.

The library of this Museum contains also the leading European medical journals of the XIX century, and all the Chilean medical books and medical journals founded and edited in Chile in the XIX and XX centuries. The library contains an archive of two

hundred manuscript documents of the colonial hospitals since the XVI century: the archives of the Hospital del Socorro in Santiago (1605-1776), the Hospital San Juan de Dios (1542-1899) and the Hospital San Borja (1772-1899). The archive contains also documents of the Tribunal de Protomedicato (1829-1888), and the Actas de la Facultad de Medicina de la Universidad de Chile, 1833-1906. (Source: Gardeta, Pilar: Catálogo de Manuscritos del Museo Nacional de Medicina. Universidad de Chile, Santiago, 1993).

Anatomía Patológica

Biol Res 2001; 34: 227-36

Antiangiogenic effect of betamethasone on the chick cam stimulated by TA3 tumor supernatant.

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Tumor growth is the result of combined cell proliferation overwhelming cell death and neoangiogenesis. This report shows CAM angiogenesis promoted by TA3 tumor supernatant with or without low doses of betamethasone (Minimal antiangiogenic concentration: beta-MAAC). Methylcellulose discs instilled with 10 microliters of beta-MAAC (0.08 microgram/ml), 10 microliters of tumor supernatant (TA3ts), 5 microliters beta-MAAC + 5 microliters TA3ts, and 10 microliters of PBS as control were implanted in host chick eggs. On day 12, the grafts were removed, photographed and fixed. Sections were stained in parallel, one and three with hematoxylin-eosin, and section two by the Tunel method. The number of vessels was evaluated in a microscopic field of the CAM (2250 micron²). The results show that beta-MAAC produced a significant inhibition of neovascularization in comparison to that observed in controls ($P < 0.0025$; Student t-Test). Discs instilled with TA3ts produced an intense stimulation of angiogenesis in contrast, when discs were instilled with 5 microliters of beta-MAAC + 5 microliters of TA3ts the angiogenesis was significantly inhibited ($P < 0.001$).

The results show that effective antiangiogenic doses of betamethasone are in the range of 10^{-7} M, (probably a genomic mediated action) and that this effect of low concentration may have clinical applications.

Centro Cardiovascular

Rev Méd Chile 2001; 129: 461-3

Acumulación de radiaciones ionizantes en el radiodiagnóstico médico. Cumulative ionizing radiation in the medical radiodiagnosis.

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La práctica de la medicina ha enriquecido su capacidad diagnóstica y terapéutica con la incorporación de recursos tecnológicos diversos, los cuales la aplicación directa de la radiación x ha sido de los más significativos. La mayor potencialidad de reconocimientos de etiologías deriva de inmediato en nuevas posibilidades de tratamientos, en los cuales también está involucrada la participación de fuentes de emisión de radiaciones. En cardiología, a modo de ejemplo, la aplicación de la radiación x ha permitido explorar en sus inicios los síndromes coronarios agudos, permitiendo establecer formas de tratamiento muy precoces, facilitando la revascularización percutánea de un lecho vascular amenazado y transformándose en una alternativa a

la cirugía en la corrección de las estenosis de la circulación coronaria. En la neuroradiología, la exploración de la circulación cerebral ha permitido tratar malformaciones vasculares donde el acto quirúrgico puede representar un riesgo superior a la terapia endovascular. En gastroenterología y cancerología la aplicación de la radiación ionizante también tiene un campo terapéutico importante, tanto para los adultos como para la población infantil. Si a ello le adicionamos la reconocida capacidad diagnóstica que tiene la radiación ionizante, que ha derivado en equipos de resolución axial tomográfica de gran velocidad y versatilidad, debemos asumir que una población de pacientes está recibiendo a lo largo de su vida una exposición a radiaciones ionizantes de magnitudes que pueden llegar a ser importantes en algunas situaciones de común ocurrencia en la práctica cotidiana.

Considerando, como ejemplo, lo que sucede en cardiología, asistimos a pacientes que han debido someterse a dos o tres procedimientos angiográficos (algunos v de diagnósticos y otros terapéuticos) acumulando una dosis de radiación que es ignorada y de la cual usualmente no queda registro alguno. Esta situación es particularmente importante en pacientes sometidos a angioplastia coronaria, donde los tiempos de exposición a radiación se pueden prolongar por más de 60 min. y en los cuales a la fluoroscopia se debe adicionar la emisión de radiación en la adquisición de imágenes (cinecoronariografía) lo que incrementa la magnitud de la exposición (Tabla 1). En procedimiento de electrofisiología, los tiempos de exposición de los pacientes son aún superiores, no existiendo en nuestro país un registro de ello, por lo cual no hay una conciencia anamnética objetiva sobre la irradiación de cada paciente particular. Los efectos estocásticos de la radiación suelen ser tardíos y, por lo general, se traducen en patologías que afectan a otros sistemas, por lo cual es altamente probable que no se establezca un vínculo de relación entre una acción tentativamente benéfica y una deter-

Tabla 1

*Dosis area (cGy*cm2) en coronariografía y angioplastia coronaria a 12 pacientes con procedimientos separados entre 24 y 76 h.*

Laboratorio de Hemodinamia, Centro Cardiovascular del Hospital Clínico de la Universidad de Chile.

Corangiografía	Angioplastia Coronaria	Corangiografía angioplastia Coronaria
cGy*cm2	cGy*cm2	cGy*cm2
4850	10312	15162
6172	16318	22490
9674	11015	20689
16857	9747	26604
10253	8986	19239
5187	10058	15245
6295	13918	20213
9594	7518	17112
7634	7497	15131
14578	18997	33575
2068	16134	18202
28636	25270	53526

cGy=centiGray*cm2

minada patología (iatrogenia encubierta). Nuestra preocupación deriva de que los efectos determinísticos de la radiación, traducidos con mayor frecuencia en lesiones dérmicas, pasaron desapercibidos para los cardiólogos que habían realizado los procedimientos propios de la cardiología intervencional y fueron detectados en los servicios de Dermatología. Están apareciendo en la literatura comunicaciones de casos con tales daños iatrogénicos, por lo cual se hace perentorio advertir a los pacientes de esta nueva complicación. Sin embargo, el daño determinístico ocurre en el corto plazo por lo cual es más factible establecer un eventual vínculo con el procedimiento que condiciona la exposición a radiación ionizante. Pero ¿cómo podríamos vincular un eventual proceso neoplásico con intervenciones angiográficas realizadas con una antelación de 10 o 15 años antes si no conocemos aún la magnitud de la radiación recibida?

Experiencias realizadas en el Laboratorio de Hemodinamia del Centro Cardiovascular del Hospital Clínico Universidad de Chile han permitido detectar, en procedimientos de cineangiocoronariografía diagnóstica, magnitudes de radiación que pueden llegar a ser importantes en la eventualidad de la repetición de los procedimientos, la cual nos ha llevado también a pensar en la magnitud de la radiación que recibe el paciente en los procedimientos intervencionales.

En la actualidad poseemos un detector de radiación con registro en línea para medir la magnitud de la radiación por área de superficie corporal, lo cual permitirá tener una información susceptible de transformarse en un registro objetivo y adicionable frente a futuras intervenciones de la misma naturaleza (Tabla 2). Es nuestro propósito propender a la pronta instauración en nuestro país de un registro personalizado de la magnitud de radiación que un paciente ha recibido frente a intervenciones como las que cotidianamente realizamos en estos laboratorios y que bien podrían ser extensivos a otros procedimientos de aplicaciones masivas, como son las mamografías a modo de ejemplo.

También aparece como necesaria la participación de un nuevo profesional en el equipo de salud que interviene en un Laboratorio de Hemodinamia y Cardiología Intervencional: el Físico Médico, que en nuestro Hospital cumple funciones de definir día a día los parámetros que optimizen el funcionamiento de cineangiógrafo a fin de que la magnitud de la radiación que incide en el paciente sea la mínima necesaria y que el resto del equipo de salud, particularmente los médicos operadores (que son los más expuestos a la radiación) reciban una magnitud de radiación lo más próxima a la que existen en el ambiente, minimizando el riesgo de los efectos determinísticos o estocásticos propios de toda emisión radioactiva.

Tabla 2

Dosis en la piel (mSv), en haz directos registradas en región escapular derecha e izquierda y dosis total en 18 pacientes durante cineangiocoronografía medidas con cristales tremoluminiscentes de Ceslo. Laboratorio de Hemodinamia, Centro Cardiovascular del Hospital Clínico de la Universidad de Chile y Comisión chilena de Energía Nuclear.

Escápula Izquierda mSv	Escápula Derecha mSv	Dosis Total mSv
20,18	34	54,14
345	320	665
129	218	347
30	199	229
145	226	371
136	208	344
129	374	503
523	153	676
290	22	312
710	167	877
427	411	838
1	635	636
12,12	178,4	190
137,1	791,4	928
403,9	67,4	470
99,4	65,5	164
286	471	757
51,6	53,2	104

mSv=miliSievert

Congreso Mundial de Protección Radiológica. Málaga, Marzo 2001.

Radiological protection in interventional cardiology in Chile.

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In september 2000, an expert mission was assigned to Chile, under the regional project named "International BBS in medical Practices Radiation Protection and Quality Assurance In Intervencional Radiology" (ARCAL XLIX). The objectives of the mission were to evaluate the level of radiation protection (RP) and safety in interventional cardiology (IC) intallations.

A team of local cardiologists, medical physicists and technologists was created for this purpose and during one week, several cardiology laboratories were evaluated and some basic quality controls (QC) were carried out. A basic pilot training course in radiation protection was imparted at the Hospital of the University of Chile in Santiago, and some of the key objectives for a future national quality assurance programme were presented during the national congress of IC. In addition, a national survey on radiation protection aspects was circulated and its results evaluated. These activities anabled the local team to become familiar with the methodology of assessment of the level of protection and the organization of a programme, which was illustrated with the examples of similar European programmes.

As result of these actions, several proposals were made to both the local authorities an the IAEA. The most important were: a) to initiate a basic QC

programme, b) to organize a training in RP for cardiologists in order to formalize their accreditation, c) to improve personal occupational dosimetry, d) to initiate a programme of patient dosimetry, e) to optimize the technical and clinical protocols, f) to create a national registry of incidents with skin injuries.

Cirugía

VIIIth World Congress International Society for Diseases of the Esophagus, September 8, 2001.

Reflux Esophagitis complicated with stricture: correlation between classification and the results of the different therapeutics options.

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The choice of treatment in patient with reflux-induced esophageal stricture is still controversial. We have classified these bening esophageal strictures into 3 types according to is length: < 3 cm = 1 point, 3.1 to 5 cm =2 points, >5 cm =3 points, Internal diameter: >11 mm =1point, 6-10 mm = points, <5mm = 3 points, and the feasibility or easiness to perform dilatation: 1 point, dificcult or riskious dilatation = points. Therefore: type (mild)= score 3 (79 pts), type II = score 4-6 (57pts), type III (severe stricture)=score 7-8(28 pts).

We present the results of 177 patients who underwent medical treatment + dilatation (13pts), Nissen fundoplication or cardial calibration +

dilatation (95 pts), Fundoplication + acid suppression - bile diversion procedure (62pts) and esophagectomy (7pts)

Results: Type I and II strictures had excellent response to dilatation but type of multiples dilatations. The follow up after medical treatment demonstrated that the late recurrence was 100% and the majority of these patients were operated on. After Nissen fundoplication the recurrence was also high independent of the type of stricture (60%). Most of these patients were reoperated on and submitted to acid suppression and bile diversion technique or esophagectomy with present better results at the long term follow up.

Surg Laparosc Endosc Percutan Tech 2001; 11: 119-25

Esophagectomy and laparoscopic gastric mobilization with minilaparotomy for tubulization and esophageal replacement.

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Several alternatives for esophageal resection and replacement with laparoscopic, thoracoscopic, video-assisted, or completely endoscopic techniques have been reported. All of these have advantages and disadvantages according to the indications, instrumental requirements, cost, and feasibility. Here we report a new alternative procedure, performing the gastric mobilization and transhiatal esophageal dissection by laparoscopic approach and preparation of the gastric tube through a midline 5-cm mini-

laparotomy. In this manner we handled the GIA staplers outside of the abdomen, avoiding prolongation of the operating time and the excessive increase of the cost of the procedure. Further, this procedure may help to prevent the risk of postoperative leak of the stapler suture line by reinforcing this suture with an invaginating continuous manual 3-0 reabsorbable suture (Monocryl, Johnson & Johnson, Cincinnati, OH, U.S.A.). A left anterolateral cervicotomy was done to complete the dissection of the esophagus, and the gastric tube was ascended through a retrosternal tunnel to the neck for esophagogastric anastomosis. We operated on a 73-year-old woman, who had a T1 squamous carcinoma of middle third of the esophagus. The operation was performed with no intraoperative complications as a result of the procedure. After surgery, pneumonia with a pleural effusion developed and was evacuated. The patient was discharged from the hospital with no symptoms. We believe that this is a safe, inexpensive, and easy procedure for the transhiatal laparoscopic esophagectomy and its replacement by a gastric tube.

Surg Oncol Clin N Am 2001; 10:531-55.

Laparoscopy in pancreatic and hepatobiliary cancer.

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Laparoscopic techniques can be used for diagnosis, staging, and therapeutic procedures, both palliative or curative. Laparoscopy needs to be used in the context of algorithms of evaluation and management that consider the natural history and biology of the diseases at stake, concepts of evidence-based decisions, cost-effectiveness, quality of life, expertise available, and the

philosophy of involved institutions. Accurate staging facilitates the selection of patients for resection, for neoadjuvant therapy, and selective planning for best palliation. The therapeutic role of advanced laparoscopic or laparoscopic assisted procedures is likely to increase (biliary bypass, gastro-jejunostomy, liver resections, cryosurgery, radiofrequency ablation, etc.). The place of laparoscopy in staging and treatment, however, has to be critically and continuously reviewed in the context of new developments in diagnostic imaging techniques, endoscopic procedures, and advances in oncology.

World J Surg 2001; 25: 1346-51

Treatment of common bile duct injuries during laparoscopic cholecystectomy: endoscopic and surgical management.

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The increase of laparoscopic cholecystectomy has resulted in an increase of bile duct injuries. The purpose of this article is to define the types of injury, their occurrence and frequency, and their management by endoscopic and surgical techniques. Three investigations were included in the present study. 1. A 3-year retrospective study among 29 hospitals with 25,007 laparoscopic cholecystectomies. 2. An 8-year prospective study at our institution of 6488 patients. 3. A prospective endoscopic study of 94 patients with injuries and strictures of the common bile duct (CBD) after laparoscopic cholecystectomy. A special classification for bile duct injuries was developed. Among 25,007

patients from 29 hospitals, a total of 74 lesions were detected with an incidence of 0.29%. At our institution, 20 cases were seen (0.29%) with type I, II, and III injuries. The 94 cases managed by endoscopic procedure were submitted to endoscopic retrograde cholangiopancreatography (ERCP) and papillotomy, with placement of several stents 5 to 10 F during 8 months. The results of this procedure have been excellent to good in 76% of the cases up to 3 years of follow-up. According to our previous and present experience, bile duct injuries after laparoscopic procedure are two times higher than after open procedure. The best treatment is the prevention of these injuries by careful surgical technique. If they occur, the best moment to repair them is during surgery. If they are noticed after the operation, endoscopic or surgical procedures can be employed.

Dermatología

X Congreso Europeo de Dermatología y Venereología
10 - 14 octubre, Munich, Alemania.

Increase in incidence rates of malignant melanoma in Santiago, Chile (1992 - 1998).

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An increase in the incidence of Malignant Melanoma (MM) has been observed worldwide. In Chile, as in other countries of South America, the true incidence of this neoplasia is unknown. We decided to study the incidence rates of malignant melanoma in five mayor hospitals of Santiago, Chile. A total of 330.000 histopathological reports were analysed. A total of 430 MM were retrieved, 179 in males (41%) and 253 in females (59%). Ages ranged between 18 and 93 years old with a median age of 61 years. The commonest anatomic site for both sexes were the feets (17.8%) and legs (16.6%). Females tend to have more MM in face than males ($p < 0.05$). 71% of the cases were confirmed as in situ melanoma. Finally, in our study, the incidence rates of MM showed a tendency to rise with a increase of 105% in the year 1998 compared with 1992. Also, the number of MM in sun exposed areas shows an increase of MM in the recent years, however, our MM rates remain lower than those MM incidence rates reported by other countries at same latitude. This study is the biggest report on malignant melanoma's rates in chilean population.

(Los resultados del mismo estudio fueron presentados también en el American Academy of Dermatology 59th Annual Meeting (2 - 7 marzo, Washington DC, USA) y XXI RADLA (5 - 8 marzo, Foz de Iguazu, Brasil).

XXI RADLA, Mayo 5 al 8, Foz de Iguazú. Abstract N°DJ07

Prevalencia de la patología Dermatológica en Pacientes de la Tercera Edad. Estudio comparativo entre pacientes autovalentes y postrados.

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La pirámide demográfica ha presentado transformaciones radicales, es así que hoy en día en Chile el 10% de la población está constituido por adultos mayores y se espera que en el 2025 esta cifra ascienda al 18%

El objetivo de nuestro estudio es determinar la presencia y tipo de lesiones en la piel de los pacientes de la tercera edad.

La población en Estudio: pacientes de la tercera edad, que se encuentran reclusos en hogares del área norte y centro de la ciudad de Santiago. Con un número de 188 pacientes distribuidos entre autovalentes y postrados. La colección de la muestra, se efectuó mediante un examen físico completo de piel y fanereos, transpasándose a un formulario diseñado para el estudio, luego con la ayuda de la ficha médica se agregaron datos.

Resultados obtenidos: El sexo prevalente en los postrados es el femenino con el 64%, en cambio en los autovalentes es el masculino con el 68%; el 84% de los autovalentes presentan micosis por dermatofitos y 1,8 por levaduras, en comparación con los postrados que presentan el 65 y el 26,2% respectivamente. El 71% de los autovalentes presentan tumores benignos y 19% tumores malignos, muy

similar a los postrados que presentan 75 y 21% respectivamente. El 41% de los autovalentes y el 57% de los postrados presentan hiper e hipopigmentación. El 22% de los autovalentes y el 41% de los postrados presentan xerosis. El 15% de los autovalentes y el 21% de los postrados presentan dermatitis seborréica. El 9% de los autovalentes y el 30% de los postrados presentan púrpura senil.

Comentarios: La patología dermatológica más frecuentemente encontrada es la micótica y tumoral. Si hay diferencias significativas en las patologías dermatológicas entre los pacientes psotrados y autovalentes.

Endocrinología

Endo 2001; Denver, junio.

Bone mineral density and IGF I levels in type 1 diabetics men.

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There are no agreement about a decreased bone mineral density (BMD) in type 1 diabetes (DM1) and which could be the main factors related.

Objectives: to evaluate in a sample of men with DM1 from Santiago Chile the BNM, IGF I, BP 3 and some bone turn over inarkers levels and to compare with a control group of similar characteristics.

Subjects and Method: we evaluated 13 DM1 and 15 healthy men from the medicine school, between 18 and 32 years old. In each one BMD was measured with DX-Lunar densitometer in column, hips and whole body. A blood sample was taken for IGF I, BP 3 and osteocalcin determination and a urine sample was collected for DPD determination. Results: The DM 1 characteristics were: 22.1 ± 3.1 yr (18-27), time of diabetes evolution: 8.8 ± 5.3 years, HbA1c: $8.7 \pm 1.7\%$, BMI: 23.2 ± 1.7 kg/m². The control group characteristics were: 23.7 ± 3 yr (19-32), BMI: 23.9 ± 2.4 kg/m². 46.1% (6/13) of the DM1 and 40% (6/15) of the control subjects had a decreased BMD in one or more of the measured areas taking a T score value less than -1. There were no difference between the T score in each point in both groups. The T value for left femoral neck was -0.073 ± 1.15 in DM1 and -0.1 ± 1.28 in controls ($p > 0.5$). There were no difference too between DM1 and control group for IGF I: 39.7 ± 57.8 vs 69.6 ± 136.7 ng/ml; osteocalcin: 14.1 ± 10.4 vs 14.7 ± 5.7 ng/ml and DPD: 86.1 ± 41.8 vs 111.1 ± 41.8 %.

94.9±32.6 tiM. Only BP 3 levels were significantly different: 2927.2 ± 1017.9 vs 3778.8±937 ng/ml (p<0.05). No correlation between IGF I levels and BMD were found.

Conclusions: there are no difference in BMD between DM 1 and control men in the sample evaluated. In both groups the BMD was decreased in about 40% and, is interesting to find this proportion in normal young men. There is an increase in bone resorption over bone formation in both group, demonstrated for DPD levels over normal range. Even we didn't find correlation between IGF 1 levels and BMD in these subjects, we couldn't affirm that is not related in BMD decrease in DM 1 subjects because the BP 3 levels are significantly minor than control and we don't have information about free IGF 1 and the other BP's.

Endocrinology 2001 May; 142(5): 2078-86

Nerve growth factor is required for early follicular development in the mammalian ovary.

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Nerve growth factor (NGF) epitomizes a family of proteins known as the neurotrophins (NTs), which are required for the survival and differentiation of neurons within both the central and peripheral nervous system.

Synthesis of NGF in tissues innervated by the peripheral nervous system is consistent with its function as a target-derived trophic factor.

However, the presence of low- and high-affinity NGF receptors in the gonads suggests another function for the NTs within the reproductive endocrine system. We now report that NGF is required for the growth of primordial ovarian follicles, a process known to occur independently of pituitary gonadotropins. Both the NT receptor p75(NTR) and the NGF tyrosine kinase receptor trkA were found to be expressed in the ovaries of infantile normal mice and mice carrying a null mutation of the NGF gene. The ovaries from homozygote NGF-null (-/-) mutant animals, analyzed after completion of ovarian histogenesis, exhibited a markedly reduced population of primary and secondary follicles in the presence of normal serum gonadotropin levels, and an increased number of oocytes that failed to be incorporated into a follicular structure. Assessment of mitogenic activity using two complementary proliferation markers revealed a conspicuous reduction in somatic cell proliferation in the ovaries of NGF-deficient mice. These results suggest that the delay in follicular growth observed in NGF(-/-) mice may be related to the loss of a proliferative signal provided by NGF to the nonneural endocrine component of the ovary.

Endocrine 2001; 15: 187-92.

Release of Norepinephrine from Human Ovary Coupling to Steroidogenic response.

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We investigated the possibility that norepinephrine from the human ovary is released after nerve stimulation and that this neurotransmitter is coupled to a steroidogenic response. Biologically significant levels of both norepinephrine and dopamine were found in human ovarian biopsies. (3 H norepinephrine incorporated in vitro was readily released by electrical stimulation in a Ca²⁺-dependent process. Ovarian membrane preparations exhibited specific binding sites for the β -adrenergic antagonist (3H dihydroalprenolol. Displacement of (3H dihydroalprenolol with zinterol (a specific P₂-agonist) indicated that 72% of these sites were type P₂-receptors. P-receptors were also present on granuloma cells. Stimulation of granuloma cells with luteinizing hormone or the β -agonist isoproterenol increased the release of progesterone after 4 d in culture. These results suggest that the sympathetic nerves present in human ovary are coupled to β -adrenergic receptors present in endocrine cells and, as in nonprimate mammals, appear to participate in the regulation of ovarian function.

Key Words: Sympathetic nerves; β -receptor, human ovary.

The mammalian ovary has a rich sympathetic nerve supply with norepinephrine as the major sympathetic neurotransmitter⁽¹⁾. Histochemical studies of catecholamine fluorescence in the human ovary have revealed a network of fluorescent fibers penetrating the ovary through the hilar region and distributed through the perivascular region, the stroma, and the follicular thecal layers ^(2,3). A role for catecholamines in ovarian physiology in nonprimate mammals has been suggested by the effects of this neurotransmitter on progesterone and androgen secretion (for a review see ref. 4), acquisition of follicle-stimulating hormone receptor and aromatase enzyme in immature rat granulosa cells ⁽⁵⁾, and development of polycystic ovary in the rat ⁽⁶⁾. Nerve terminals in the human ovary are, as in other mammals, in close synaptic contact with the thecal layer, but they do not appear to cross the follicular basement membrane into the granuloma cell layer (for a review, see ref. 7). No further functional characterization of the nerves has been published, although there have been many studies on the putative role of catecholamines in ovarian physiology, particularly in the contraction and relaxation of the follicular wall ^(8,9).

A role for catecholamines in regulation of progesterone release from human granuloma cells has, however, been more difficult to demonstrate. Although norepinephrine stimulates progesterone release from thecal and granuloma cells in the nonprimate ovary (for a review, see ref. 4), there are divergent opinions about the role of catecholamines in steroid secretion from the primate ovary. In some studies, norepinephrine and/or β -agonists appear to stimulate ⁽¹⁰⁾, potentiate the effect of gonadotropin ⁽¹¹⁾, or have no effect ⁽¹²⁾ on progesterone secretion by granuloma cells.

A physiologic role for endogenous catecholamines in ovarian function would be supported by a relationship between norepinephrine released at sympathetic terminals and its action on postsynaptic receptors present in endocrine cells. Such a relation-

nship would be distinct from the effects of norepinephrine attributable to the action of plasma catecholamines. We have employed neurochemical techniques to demonstrate the existence of functionally active noradrenergic nerve terminals in the human ovary. We have also characterized β -adrenergic receptors and suggest that these are related to the β -adrenergic mediated secretory response.

Mol Cell Neurosci 2001; 17: 107-126.

TTF-1, a homeodomain gene required for diencephalic morphogenesis, is postnatally expressed in the neuroendocrine brain in a developmentally regulated and cell-specific fashion."

Lee BJ, Cho GJ, Norgren RB Jr, Junier MP, Hill DF, Tapia V, Costa ME, Ojeda SR.

TTF-1 is a member of the Nkx family of homeodomain genes required for morphogenesis of the hypothalamus. Whether TTF-1, or other Nkx genes, contributes to regulating differentiated hypothalamic functions is not known. We now report that postnatal hypothalamic TTF-1 expression is developmentally regulated and associated with the neuroendocrine process of female sexual development. Lesions of the hypothalamus that cause sexual precocity transiently activate neuronal TTF-1 expression near the lesion site. In intact animals, hypothalamic TTF-1 mRNA content also increases transiently, preceding the initiation of puberty. Postnatal expression of the

TTF-1 gene was limited to subsets of hypothalamic neurons, including LHRH neurons, which control sexual maturation, and preproenkephalinergic neurons of the lateroventromedial nucleus of the basal hypothalamus, which restrain sexual maturation and facilitate reproductive behavior. TTF-1 mRNA was also detected in astrocytes of the median eminence and ependymal/subependymal cells of the third ventricle, where it colocalized with erbB-2, a receptor involved in facilitating sexual development. TTF-1 binds to and transactivates the erbB-2 and LHRH promoters, but represses transcription of the preproenkephalin gene. The singular increase in hypothalamic TTF-1 gene expression that precedes the initiation of puberty, its highly specific pattern of cellular expression, and its transcriptional actions on genes directly involved in neuroendocrine reproductive regulation suggest that TTF-1 may represent one of the controlling factors that set in motion early events underlying the central activation of mammalian puberty.

J Neurol Sci 2001; 187:51.

Restless Legs Syndrome: Prevalence in the Chilean Adult General population and Uremic Patients.

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The restless legs syndrome (RLS) is a movement disorder characterized by an imperative urge to move the legs, associated with paraesthesias, motor restlessness and worsening of symptoms at night with at least partial relief by activity. The prevalence of RLS varies between 2-15% of general adult population and 20-30% of uremic patients. We

are not aware of any studies regarding RLS in our country.

Aim:

To evaluate the frequency and the clinical features of RLS in a sample of our general adult population and in uremic patients, making in these patients a correlation with biochemical parameters.

Method:

We personally interviewed 100 people, relatives of outpatients and 166 uremic patients undergoing chronic haemodialysis the presence and severity of RLS with questions based on current diagnostic criteria. Specific biochemical parameters assessed were hematocrit, ferritin, phosphate, intact parathyroid hormone (iPTH) levels.

Results:

13% of the general population sample was affected, 15% of cases were severe. Forty-three cases were found in uremic patients (25,9%) ($p < 0,01$ vs general population), 60% of cases were severe and women were affected with more frequency ($p < 0,05$) and severity ($p < 0,01$). Four patients displayed RLS even during the dialysis. No correlation was found with biochemical parameters.

Most RLS cases had not been diagnosed previously.

Conclusions:

In our population RLS is common and underrecognized. It is especially prevalent and severe in uremic patients: regarding this RLS form we found no evidence that anaemia, iron deficiency or PTH level play a major pathogenic role. Our findings emphasize the need of greater medical recognition of RLS because effective therapy is available which may improve the quality of life of patients.

Endo 2001, Denver 2001, junio.

Detection of malignancy markers in thyroid nodules by reverse transcription and polymerase chain reaction (RT-PCR) in fineneedle aspiration biopsy (FNAB) samples.

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FNAB is the most useful evaluation tool for the diagnosis of thyroid nodules. However, in some clinical situations, the cytological analysis of the sample is nondiagnostic and another reliable technique is required. Recently, it has been proposed that the study of specific mRNAs whose expression is restricted to malignancies, could be a useful preoperative diagnosis method. These mRNAs can be detected by RT-PCR. The sensitivity and specificity of this test to predict malignancies for the different mRNA proposed as potential molecular markers is still unclear.

The aim of this study was to assess the usefulness of this technique in the diagnosis of thyroid nodules through the detection of the mRNA for MUC 1, CD 26 and galectin 3, all reported as markers of malignancy and TSH receptor, a normal thyroid antigen.

FNAB was performed in 100 patients as routine evaluation of thyroid nodules. After preparing cytological smears, the leftover material was used for RNA isolation and stored at -70°C. 19 patients of this group afterwards undergo thyroid surgery and the cytological and RT-PCR findings were correlated with histopathological analysis.

8 cases of positive cytology were identified, all of them were papillary carcinomas. 4 cases were considered suspicious of papillary neoplasm and 5 suspicious of follicular neoplasm; all of them were found benign at histopathology. 2 cases of negative cytology were also found to be benign nodular hyperplasia. In RT-PCR analysis, TSH receptor was detected in all samples (100%), MUC 1 was detected in 5 of 8 papillary carcinomas (62,5%) and in 1 of 11 histopathological benign samples (9,1%). CD 26 was present in 7 of 8 papillary carcinomas (87,5%), but also in 8 of 11 benign cases (72,7%). Galectin 3 was detected in all malignant and benign samples.

Conclusions: The RT-PCR detection of MUC 1 could be a useful technique in the differential diagnosis of suspicious cytology findings. CD26 and galectin 3 detection by this method does not differentiate benign and malignant thyroid nodules.

Fisiatría

Rev Méd Chile 2001; 129: 23-31

Instrumento de Evaluación Funcional de la Discapacidad en Rehabilitación. Estudio de confiabilidad y experiencia clínica con el uso del FIM

(Functional Independence Measure).

Clinical use and inter rater agreement in the application of the Functional Independence Measure*.

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El «Functional Independence Measure» (FIM) es un instrumento de evaluación de la discapacidad ampliamente usado, que permite evaluar el resultado y progreso de un programa de rehabilitación médica. Objetivos: Realizar un estudio de confiabilidad interobservador en la aplicación del FIM en nuestro medio y mostrar una experiencia clínica de su uso en pacientes discapacitados en un programa de rehabilitación.

Pacientes y métodos: Se aplicó el FIM en 40 pacientes, estudiándose la concordancia interobservador, con evaluadores con y sin entrenamiento en su uso.

Se usa el test de Kappa para determinar el nivel de concordancia. Posteriormente se aplica el FIM en una población de 100 pacientes hospitalizados en la unidad de Rehabilitación del Hospital Clínico, observando el cambio en su perfil durante el programa de rehabilitación.

Resultados: La concordancia obtenida es alta en el área física y baja en el área cognitiva. Cuando se realiza un entrenamiento específico se obtiene un nivel de concordancia significativo del FIM ($p < 0.05$). La experiencia clínica muestra una mejoría significativa de los resultados del FIM, especialmente en el área Física, obteniéndose una eficiencia similar a datos de publicaciones extranjera.

Conclusiones: Debe realizarse un entrenamiento específico en el uso del FIM para lograr una confiabilidad aceptable. Es un instrumento que nos permite evaluar el grado de discapacidad de los pacientes en un programa de rehabilitación, observar el cambio en sus áreas específicas, y finalmente evaluar la eficiencia del programa de rehabilitación.

Gastroenterología

Rev Gastroenterol Perú 2001; 21: S40.

Hiperinsulinemia: Factor Patogénico de la progresión de la Esteatohepatitis no Alcohólica (EHNA) Asociada a Obesidad.

Contreras J, Poniachik J, Araya V, Csendes A, Smok G, Rojas J, Cavada G, Papapietro K, Mancilla C, Cancino I, Lazarte R. Centros de Gastroenterología y Endocrinología, Depto. de Cirugía, Depto. de Anatomía Patológica del Hospital Clínico, Escuela de Salud Pública y Facultad de Medicina Universidad de Chile

La EHNA es una entidad cuyas características clínicas e histológicas son muy semejantes a la enfermedad hepática alcohólica. Sus mecanismos etiopatogénicos son desconocidos. Sólo se conoce asociación a obesidad, diabetes mellitus y otros.

Objetivos:

Determinar la construcción que podrían tener en la patogenia de la EHNA asociada a obesidad. Los niveles de glucosa e insulina y el grado de resistencia a la insulina.

Pacientes y Métodos:

19 pacientes obesos, no alcohólicos, con índice de masa corporal (IMC) $> 35 \text{ Kg/m}^2$ sometidos a gastroplastía, se les realizó mediciones antropométricas, perfil lipídico y perfil hepático, prueba de tolerancia a la glucosa (PTG) con mediciones de insulinemias y el cálculo de las respectivas áreas bajo la curva. Para evaluar insulino resistencia, se les realizó un test de tolerancia a la insulina IV y se calculó el Kitt. Durante el acto quirúrgico se les realizó una biopsia hepática, graduándose la esteatosis, inflamación y fibrosis según severidad. Se correlacionaron los siguientes parámetros glicemia

basal glicemia a los 120 min. área bajo la curva de insulinemias y ktt con la severidad histológica.

Resultados:

Los niveles de insulina basal y el área bajo la curva de insulinemia fueron significativamente mayor en los pacientes con inflamación portal en comparación con pacientes sin inflamación portal (insulina basal: $47,3 \pm 19,1$ uUI/ml vs $17,9 \pm 6$ uUI/ml) ($p < 0,001$). (área bajo la curva de insulinemia $37,361$ uUI/ml $\pm 35,789$ uUI/ml vs $12,592 \pm 753$ uUI/ml) ($p < 0,05$). La insulina basal fue significativamente mayor en los pacientes con inflamación intralobulillar en comparación con pacientes sin inflamación ($38,1 \pm 22$ uUI/ml vs $18,5 \pm 6,7$) ($p > 0,05$). El área bajo la curva de insulinemia fue significativamente mayor en los pacientes con fibrosis ($30,233$ uUI/ml $\pm 30,015$ uUI/ml vs $11,921$ uUI/ml $\pm 7,799$ uUI/ml) ($p > 0,05$). El 94% de los pacientes fue resistente a la insulina. No hubo diferencias entre pacientes obesos normoglicémicos ($n=10$), intolerantes a la glucosa ($n=7$) y diabéticos ($n=2$) en relación a la histología.

Conclusiones:

Los niveles altos de insulinemia podrían tener un rol patogénico en la progresión de la EHNA, ya que están aumentados en presencia de inflamación y fibrosis.

Rev Gastroenterol Perú 2001; 21: S42.

Rev Gastroenterol Perú 2001; 21: S37.

Rol de los Sistemas Antioxidantes en la Patogenia de la Esteatohepatitis no-Alcohólica (EHNA) Asociada a Obesidad.

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La EHNA es una entidad de alta prevalencia, sus características histológicas son muy semejantes a la enfermedad hepática alcohólica. Sus mecanismos etiopatogénicos son aun desconocidos. Actualmente sólo se conocen factores asociados a esta entidad, siendo la obesidad el factor más importante. Se ha postulado al estrés oxidativo como posible mecanismo patogénico de esta entidad, favoreciendo la lipoperoxidación, como productos de esta aparecen aldehidos, como el malondialdehido (MDA).

Esta teoría requiere que los sistemas antioxidantes sean insuficientes para compensar la mayor producción de radicales libres. Dentro de los sistemas protectores, destacan la superóxido dismutasa (SOD), la glutatión peroxidasa (GSH Px) y la catalasa.

Objetivo:

Determinar la actividad de estos sistemas antioxidantes en la EHNA asociada a obesidad.

Pacientes y Métodos:

29 pacientes obesos sometidos a gastroplastía fueron incluidos. Durante la cirugía se realizó una biopsia hepática en la cual se graduó la severidad histológica. Se determinó la actividad de las enzimas antioxidantes y MDA en el tejido hepático; la catalasa se determinó por el método de la des-

trucción del peróxido de hidrógeno, la SOD y la GSH Px por espectrofotometría. Además se evaluó la lipoperoxidación a través de la medición de MDA. Se comparó los sistemas antioxidantes de pacientes con esteatosis pura vs pacientes esteatosis más inflamación y/o fibrosis hepática.

Resultados:

Los pacientes que presentaron fibrosis tuvieron significativamente menor actividad de catalasa y de GSH Px (catalasa $0,343 \pm 0,06$ K/mg Pvs $0,523 \pm 0,07$ K/mg P $p < 0,005$. GSH Px: $0,0563 \pm 0,031$ U/mg Pvs $0,09 \pm 0,02$ U/mg P. $p < 0,05$). La concentración de MDA fue significativamente mayor en pacientes con fibrosis hepática que en pacientes con esteatosis pura (MDA $5,99 \pm 1,14$ nmoles/g P vs $2,55 \pm 1,3$ nmoles/g P. $p < 0,05$). No hubo diferencia en la actividad de SOD.

Conclusiones:

La disminución de los sistemas enzimáticos antioxidantes principalmente la catalasa y la GSH Px podrían tener un rol patogénico en la EHNA asociada a obesidad. La lipoperoxidación podría ser uno de los mecanismos patogénicos de la EHNA.

fibrosis. Rev Gastroenterol Perú 2001; 21: S42.

Carcinoide Gástrico (Tumor Neuroendocrino Gástrico).

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El carciñoide gástrico es una neoplasia neuroendocrina que tiene muy baja incidencia (menos del 1% de todas las neoplasias gástricas). Se diferencia según sus características clínicas e histológicas en Tipo I asociado a gastritis crónica atrófica tipo A (CAG A) constituye el 75% de los casos (la mitad asociada a anemia perniciosa). Tipo II: asociado al síndrome de

Zollinger Ellison y Neoplasia Endocrina Múltiple de tipo I. Tipo III esporádico.

Objetivos:

Describir las características clínicas, endoscópicas y evaluar el tratamiento en pacientes con diagnóstico histológico de carciñoide gástrico vistos en nuestro hospital en los últimos dos años.

Pacientes y Métodos:

Once pacientes con el diagnóstico histológico de carciñoide gástrico fueron incluidos en este estudio. Se logró revisar la historia y evolución de los pacientes. De ellos se analizó su presentación clínica, endoscópica, patología asociada, tratamiento y evolución.

Resultados:

El promedio de edad al momento del diagnóstico fue de $56,8 \pm 9,46$ años, 7 pacientes (63,6%) fueron de sexo femenino. La presentación clínica fue de: dolor abdominal epigástrico en 8 pacientes (72,72%); fatiga, palidez, adinamia y baja de peso en 3 (27,27%); dolor epigástrico y baja de peso en 1 (9,09%), dolor abdominal postprandial en 2 casos (18,18%). Los hallazgos endoscópicos fueron: Pólipos múltiples en el fondo 5 (45,45%), gastritis verrucosa en 1 (9,09%), pólipos en el antro 1 (9,09%), pólipos en el fondo, cuerpo y antro 1 (9,09%), dos pólipos subcardiales en 1 (9,09%), lesión polipoidea ulcerada única en el fondo en 1 (9,09%) y una lesión tipo Bormann III en uno (9,09%). Se encontró enfermedad asociada: anemia perniciosa en 7 pacientes (63,63%). Tuvieron gastritis atrófica 7 pacientes (63,63%). Se obtuvo datos de gastrina en 4 pacientes y en todos ellos estuvo elevada. Se realizó en 1 gastrectomía total, en 3 gastrectomía subtotal, en 1 antrectomía, en 1 antrectomía con mucosectomía proximal, en 2 gastrectomía total ampliada y en 1 se realizó mucosectomía endoscópica solamente, en 2 sólo polipsectomía.

Conclusiones:

El tumor carciñoide gástrico (neoplasia neuroendocrina gástrica) debe ser sospechada ante la visión

endoscópica de lesiones polipoideas en el fondo gástrico de pacientes que además presenten dolor epigástrico y anemia.

Rev Gastroenterol Perú 2001; 21: S36.

Significado Clínico e Histológico de las Alteraciones Mantenidoas e Inespecíficas de las Transaminasas.

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Es frecuente la existencia de pacientes con alteraciones mantenidas en las transaminasas en ausencia de marcadores sugerentes de enfermedad hepática específica. El significado clínico, la importancia y necesidad de estudio histológico son controversiales.

Objetivo:

Investigar las características clínicas e histológicas de pacientes con transaminasas elevadas hasta 5 veces su valor normal, sin signos de daño hepático crónico y sin una etiología específica.

Pacientes y Métodos:

39 pacientes, edad promedio $47,4 \pm 12,2$ años. 19 de sexo femenino (48,7 %), fueron estudiados retrospectivamente. Se incluyeron pacientes con transaminasas elevadas hasta 5 veces sus valores normales, de por lo menos 6 meses, con ingesta alcohólica <20 gr/día, sin ingesta de fármacos potencialmente hepatotóxicos. El estudio etiológico para VHC, VHB, autoinmunidad (ANA, AML, AMA, cuantificación de inmunoglobulinas A, G y M),

ferritina, cinética de hierro y ceruloplasmina fueron negativos. Todos los pacientes incluidos en este estudio tenían biopsia hepática. Se analizaron los diagnósticos clínicos, alteraciones de las pruebas hepáticas, peso, talla, otras enfermedades concomitantes, perfil lipídico y hallazgos histológicos.

Resultados:

29 pacientes (51,3%) tenían alteraciones de la SGOT. 37 pacientes (94,8%) de la SGPT. 24 pacientes (61,5%) tenían además alteraciones de la Fosfatasa Alcalina y 17 pacientes (43,5%) de la GGT. Tenían sobrepeso u obesidad 32 pacientes (82,1%) y alteraciones en el colesterol total 17 pacientes (43,6%). Los diagnósticos clínicos planteados previos a la biopsia fueron: esteatohepatitis no alcohólica (EHNA) en 29 pacientes (74,4%) y hepatitis crónica, colestasis, hemocromatosis y otros en 10 pacientes (25,6%). El estudio histológico fue compatible con EHNA sin fibrosis en 18 pacientes (46,3%). EHNA con fibrosis en 17 pacientes (43,6%). EHNA más cirrosis en 1 paciente (2,5%), granulomatosis hepática en 2 pacientes (5,1%) y normal en 1 paciente (2,5%).

Conclusiones:

La EHNA en nuestro medio es la principal causa de alteraciones mantenidas de las transaminasas con estudio etiológico negativo. A pesar de lo anterior la biopsia hepática estaría indicada no sólo para la confirmación diagnóstica, sino también para demostrar la presencia de fibrosis o cirrosis.

Am J Gastroenterol 2001; 96: 1251-5

Long-Term treatment with cisapride and antibiotics in liver cirrhosis: effect on small intestinal motility, bacterial overgrowth, and liver function.

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Objectives: Altered small-bowel motility, lengthening of the orocecal transit time, and small-intestinal bacterial overgrowth have been described in patients with liver cirrhosis. These changes might be related to the progressive course and poor prognosis of the disease. We investigated the effect of a long-term treatment with cisapride and an antibiotic regimen on small-intestinal motor activity, orocecal transit time, bacterial overgrowth, and some parameters of liver function. **Methods:** Thirty-four patients with liver cirrhosis of different etiology entered in the study. They were randomly allocated to receive cisapride⁽¹²⁾, an alternating regimen of norfloxacin and neomycin⁽¹²⁾, or placebo⁽¹⁰⁾ during a period of 6 months. At entry and at 3 and 6 months, a stationary small-intestinal manometry was performed, and orocecal transit time and small-intestinal bacterial overgrowth were also investigated using the H₂ breath test. Liver function was estimated with clinical and laboratory measurements (Child-Pugh score). **Results:** After 6 months, both cisapride and antibiotics significantly improved fasting cyclic activity, reduced the duration of orocecal transit time, and decreased small-intestinal bacterial overgrowth. Cisapride administration was followed also by an increase in the amplitude of contractions. No

statistically significant variations in these parameters were observed with placebo. An improvement of liver function was observed at 3 and 6 months with both cisapride and antibiotics. **Conclusions:** Long-term treatment with cisapride or antibiotics reversed altered small-intestinal motility and bacterial overgrowth in patients with liver cirrhosis. These findings suggest a possible role for prokinetics and antibiotics as a modality of treatment in selected cases of decompensated cirrhosis.

Rev Gastroenterol Perú 2001; 21: S37.

Sobrecrecimiento Bacteriano intestinal en pacientes diabéticos, cirróticos y portadores de ambas condiciones.

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Se estima que entre un 30 a 60% de los pacientes diabéticos, después de 10 años de evolución y enfermedad, presentan algún cuadro clínico secundario al compromiso neuropático del tracto gastrointestinal, entre los cuales se encuentra el sobrecrecimiento bacteriano intestinal (SBI). El SBI en diabéticos no ha sido estudiado en nuestro medio. Sabemos que los pacientes cirróticos presentan mayor SBI que los sujetos sanos, a lo cual se asocia una alteración de la motilidad del intestino delgado. Por otra parte se observa con frecuencia la asociación diabetes y cirrosis. Nuestro Objetivo fue evaluar y comparar la incidencia del SBI en diabéticos, cirróticos y cirróticos diabéticos.

	x Edad años (rango)	TTOCm n:80 - 100 m	%TTOC > 100 m	% pacientes SBI	H2: 60 ppm
Cirrosis	57 (44 - 77)	109 ± 4.3	53	66,6	77 ± 1 5
Diabetes 1	22 (18 - 27)	109 ± 7.2	40	90	108 ± 21
Diabetes 2	59 (48 + 53)	128 ± 6.5	85	60	89 ± 26
Cirro + diab	61 (46 - 67)	129 ± 9.0	64	60	74 ± 16

Material y Método: Se estudiaron 30 pacientes diabéticos, x edad = 46.2 a (rango 18-83) 10 tipo 1, 30 pacientes cirróticos: x edad = 61,3 a, (rango 48-67). Se realizó un test de H2 en aire espirado con lactulosa por un tiempo mínimo de 180 m. Con medición basal y cada 10 m. Después de la ingesta de lactulosa: se evaluó el tiempo de tránsito oral cecal (TTOC) (valor normal (n) 80-100 min.) y SBI. Se consideró SBI la presencia de lecturas mayores a 10 ppm sobre el basal (basal normal < de 10 ppm) y la cuantía se expresa como la suma de la (H2) de los primeros 60 minutos (H2:60). Análisis estadísticos con Anova (*p<0.05)

Resultados: (ver tabla)

Conclusión : Los pacientes diabéticos tipo 1 presentan un % de SBI significativamente mayor que en los otros grupos. La asociación diabetes y cirrosis se acompaña de TTOC mayor que los cirróticos no diabéticos y similar a los diabéticos tipo 2, y no presentan mayor SBI.

Rev Gastroenterol Perú 2001; 21: S48.

Alteraciones Motoras Gastroduodenales en la enfermedad de Chagas: Relación con Compromiso del Colon y Esófago.

Dres. Madrid AM, Quera R, Defilippi C, Gil LC, Defilippi CL.

Henriquez A, Sapunar J

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La infección por *Tripanosoma cruzi* se ha detectado en el 19% de la población en Chile. El megacolon es la alteración más frecuente observada en estos pacientes. El compromiso del esófago (acalasia) no es frecuente en nuestro país. No se ha estudiado en nuestro medio el compromiso gástrico y del intestino delgado en estos pacientes.

Objetivo: Estudiar el compromiso motor gastrointestinal en pacientes portadores de enfermedad de Chagas.

Material y Método: 50 pacientes de nuestro centro fueron invitados a participar. 18 aceptaron ingresar al estudio (12 mujeres, edad x 44,6 a (rango 18-67). 13 tenían síntomas digestivos diversos, 7 megacolon y 7 alteraciones inespecíficas de la motilidad esofágica. Se realizó Manometría intestinal (MI) en ayunas por 5 horas, con 4 catéteres perfundidos, colocados en duodeno distal, se evaluó presencia de actividad cíclica, frecuencia (frec normal (n) 1,2 (0,2 cpm) y amplitud (amp. N 32+ 1,3 mmHg) de on-

das, duración de fase II ($n = 95 \pm 10$ m) y contracciones agrupadas por hora (CCA p h. $N = 0,01 \pm 0,01$). Electrogastrografía de superficie (EGG) mediante un equipo de registro y análisis computacional de Synectics Medtronic durante 60 minutos pre y post prandial, se evaluó la frec. de ritmo dominante y la respuesta del voltaje post prandial. El análisis estadístico se realizó con Anova.

Resultados:

Motilidad Intestinal, todos los pacientes presentaron actividad cíclica, 15 presentaron MI anormal 5 frec. Disminuida $\times 0,44 \pm 0,1$ cpm. En 4 menor amplitud con un $\times$ de $18,2 \pm 0,9$ mmHg, aumento de CCA en 5, con $\times 10,25 \pm 3,5$ p.h. 6 tuvieron aumento y 6 disminución de la fase II con $\times 173 \pm 19$ m y 44 ± 6 m respectivamente. EEG estuvo alterada en 11 pacientes. Las anomalías más frecuentes fueron: 7 pacientes con bradigastria y 4 con taquigastria, 7 presentaron alteración de la frecuencia dominante y 2 tuvieron ausencia de respuesta del voltaje post prandial menor de 1.

Conclusión:

El compromiso motor del intestino delgado en la enfermedad de Chagas es frecuente, puede ser de grado moderado a discreto y predominio mixto. El estómago se encuentra con frecuencia alterado fundamentalmente por compromiso del ritmo de la frecuencia.

Rev Gastroenterol Perú 2001; 21: S25.

Heparina e insulina en el tratamiento de la Pancreatitis aguda por Hipertrigliceridemia.

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Un valor de trigliceridemia > 1000 mg/dl es considerado un factor etiológico en un 1.3-3.5% de las pancreatitis agudas (PA). La persistencia de este nivel aumenta la gravedad de la PA, mientras su rápida reducción favorece su evolución. La causa de la hipertrigliceridemia (HTG) es una disminución genética de la lipoproteína lipasa (LPL) que se manifiesta por factores externos (alcohol (OH) diabetes mellitus (DM), embarazo y fármacos).

La heparina y la insulina estimulan la actividad de la LPL, pudiendo ser estos útiles en el tratamiento (tto) de esta patología.

Objetivos: Presentar nuestras experiencias con el uso de heparina e insulina en el tto de la PA por HTG.

Pacientes y Métodos: Se incluyen 5 pacientes (pac-tes), cuatro mujeres y un hombre, edad $\times 38 \pm 10$ años (27-54) con PA definida por cuadro clínico, laboratorio e imágenes. Se descartó etiología biliar en cuatro pac-tes y en todos se detectó HTG severa (> 1000 mg/dl) al momento del diagnóstico. Además del tto convencional de la PA, en cuatro casos se inició heparina por bomba en infusión continua 875 ± 220 u/hr (800-1300) por 3,75 días (2-5) y en tres insulina cristalina $56,7 \pm 44,5$ U/día por 4,3 días (3-5).

Resultados: 3 pacientes presentaron al menos un factor de riesgo (DM, OH, HTG familiar). El puntaje de gravedad radiológico de la PA fue en $\times 5 \pm 1,73$ (4-8). Al ingreso los triglicéridos (TG) fueron en $\times 5428 \pm 3317,9$ mg/dl (1590-8690), disminuyendo a < 500 mg/dl a los $3,75 \pm 1,5$ días (2-5). La amilasa y

lipasa plasmática fueron de $516 \pm 495,6$ U/L (144-1360) y $2013,2 \pm 2721$ U/L (364- 6820) respectivamente. Todos los pacientes fueron hospitalizados en una unidad de paciente crítico, evolucionando en forma favorable, con una estadía hospitalaria en promedio de $31,2 \pm 29,67$ días (15-84). Un solo paciente presentó una complicación precoz (injurio pulmonar aguda, la cual no requirió ventilación mecánica invasiva) y una tardía (colección infectada, tratada por drenaje percutáneo).

Conclusión: El uso de heparina y/o insulina reduce rápidamente el nivel de los TG, probablemente disminuyendo la severidad de la PA. Es un tratamiento seguro, efectivo y accesible en cualquier centro asistencial. Sus costos y riesgos son muy inferiores a los descritos para otras opciones terapéuticas como la plasmaferesis.

Rev Gastroenterol Perú 2001; 21: S35

Sobrecrecimiento Bacteriano Intestinal en la Esteatohepatitis no Alcohólica: Correlación con la Histología.

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La esteatohepatitis no alcohólica (EHNA) es una entidad clínica de etiología no claramente establecida y de características similares a la esteatohepatitis alcohólica, responsable de cirrosis hepática. Por otra parte los pacientes con cirrosis hepática de diferentes etiologías presentan mayor frecuencia de sobrecrecimiento bacteriano intestinal (SBI) observado en 25% de sujetos sanos y aumento del tiempo de tránsito oro cecal (TTOC). No se ha estudiado la presencia de SBI y el TTOC en estos pacientes.

Objetivo: Evaluar incidencia de SBI y TTOC en pacientes con EHNA y correlacionar con la presencia de grasas, fibrosis e inflamación a la histología.

Material y Método: Se estudió 40 pacientes (35 mujeres, x edad 42 a (rango 19-60), portadores de EHNA, diagnosticada por laboratorio, ecotomografía e histología. Se evaluó TTOC (normal 80-100) y SBI con test de H₂ en aire espirado con lactulosa (basal normal < 10 ppm). Mediciones de la (H₂) basal y cada 10 min. Por 180 min. post ingesta de 25 g. de lactulosa. La cuantía del SBI se expresa como la suma de la (H₂) de los primeros 60 min. (h260ppm).

Nº Pac.	Sin Fibrosis (23)	Con fibrosis (16)	Grasa 0-1 (14)	Grasa 2-3 (25)	Sin Inflamac. (16)	Inflamac. (23)	Grasa Inf.+Fibr. (14)
TTOC min.	110 + 5	138 + 7	115 + 7	126 + 6	106 + 5	134 + 6	141 + 8
% > TTOC	63	94	78	76	62,5	87	92,8
% SBI	30	64,7	46	44	31	57	78

Se considera SBI la presencia de lecturas mayores a 10ppm sobre el basal los primeros 60 min. Histología, se evaluó grasa como: Ausencia:0; leve: 1; moderada: 2; severa: 3. Fibrosis, no: 0; si: 1. Inflamación lobulillar, no:0; si: 1. Análisis estadístico con Anova y test de correlación ($p < 0,05$).

Resultados: (ver tabla)

Conclusión:

Los pacientes con EHNA presentan un alto % de SBI y un aumento del TTOC. Los pacientes con mayor compromiso histológico (grasas, fibrosis e inflamación) presentan un TTOC y SBI significativamente elevado.

Hematología

Thrombosis and Haemostasis 2001; Suppl Julio: CD 3635

Homocysteinemia and parameters of hemostasis in patients subject to renal transplant or chronic hemodialysis.

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It has been suggested that coagulation and fibrinolysis could be present in patients subject to renal transplant contributing to its rejection.

Hyperhomocysteinemia is an independent risk factor for the development of thrombosis and cardiovascular disease, and it could play a significant role in the chronic hemodialysis and renal transplant.

	Normal Control x SEN1	Dialyzed x SEKI	Transplanted x SEM
AntithrombinIII(01.)	105 + 2.8	84 + 2.3*	115 + 3.6*
Fibrinogen (mg.,dL)	289 + 12	441 + 17**	339 + 21**
Plasminogen (%)	108 + 8	98 + 3.9	95 + 4.6
Von Willebrand factor(%)	90 + 12	150 + 12**	125 + 6*
Homocysteine	9 + 7	22.4 + 4***	9.9 + 1.8

* $p < 0.001$, ** $p < 0.01$, *** $p < 0.0001$, * $p < 0.04$, * $p < 0.001$, ** $p < 0.003$, *** $p < 0.0001$

The purpose of the present study was to evaluate variations of fibrinogen (Method of Clauss), antithrombin III (chromogenic method), plasminogen (chromogenic method), von Willebrand factor (Method of Laurell) and homocysteine (FPIA, Abbott) in both patients subject to hemodialysis and renal transplant. Twenty non-diabetic patients undergoing chronic dialysis and 20 patients presenting < 2 mg/dL creatininemia level and subject to renal transplant at least one year before, were included in this study.

The significant increase of the fibrinogen level and the von Willebrand factor compared to normal controls could indicate a risk of thrombosis as well as an important factor in the development of cardiovascular disease in both groups.

This risk Could increase in the dialyzed group presenting significantly increased homocystenemia and decreased antithrombin III, as well as increased fibrinogen and von Willebrand factor.

The group of patients submitted to renal transplant increased antithrombin III levels and decreased homocysteinemia, indicating a diminished thrombosis risk on the light of these parameters compared to the dialyzed group.

Alteración de la estabilización del coágulo de fibrina por la presencia de un inhibidor adquirido del factor XIII.

Caso Clínico (revisión de la literatura)

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El factor XIII (FXIII) hace el coágulo de fibrina más estable y más resistente a la fibrinólisis. La deficiencia de FXIII puede ser congénita o adquirida y es causa de hemorragias severas. Se han reportado 24 casos de inhibidores adquiridos de FXIII y existen pocos antecedentes de la evolución y manejo de esta condición.

Caso Clínico: Mujer de 57 años de edad que consulta por presentar en forma espontánea extensos hematomas subcutáneos, sin antecedentes personales ni familiares de tendencia hemorrágica, de ingestión de drogas u otras enfermedades. El examen físico muestra equimosis y hematomas en extremidades y pared abdominal. Radiografía de tórax, función hepática, renal, estudio inmunológico y de coagulación (TTPK, tiempo de protrombina, tiempo de trombina, recuento de plaquetas, fibrinógeno, FDP, dímero D, lisis de euglobulinas, agregación plaquetaria y estudio de Von Willebrand) en rangos normales. El test de solubilidad del coágulo con urea fue de 35 min (normal: >24h), que no se corrigió con una mezcla 1:1 de plasma normal, demostrando la presencia de un inhibidor. Con mezclas 1:2, 1:4, 1:6 y 1:8 el coágulo se disolvió antes de los 40 min. La terapia con esteroides y ciclofosfamida no fue efec-

tiva. Se encuentra con ácido tranexámico y persiste con hematomas de menor magnitud.

Conclusión: Los inhibidores adquiridos de FXIII son una causa poco frecuente de sangrado; deben ser sospechados en pacientes con sangrado grave y test de coagulación de rutina en límites normales. El diagnóstico se confirma con un test de solubilidad del coágulo alterado que no se corrige con una mezcla 1:1 de plasma normal.

XLIII Annual Meeting of the American Society of Hematology (7-11 december, Orlando FL, USA).

Blood 2001; 98: Abstract 186

Functional Protein S in Normal Pregnancy: A comparison between two methods.

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Pregnancy is a hypercoagulable state and an increase incidence of thromboembolic phenomena has been reported. Relevant changes in the hemostatic mechanism have been reported during physiological pregnancy; increase concentrations of the most clotting factors. Changes in protein S (PS) levels have been described, but values are conflicting. The objective of the study was establish range values of functional PS levels with a clot based method and with an antigenic test, during second (2ndT) and third trimesters (3rd T) of normal gestation. Patients and methods: 41 patients entered the study and were 20 for 2nd T (22-24 weeks) and 21 for 3rd T (29-38 weeks): they were no smokers, had no history of prior venous thrombosis, hypertension or other significant medical disease, and used no medications during gestation. Normal controls were obtained in the routine laboratory

with prothrombin time and activated partial thromboplastin time (APTT) normal. We perform complete blood counts (CBS), fibrinogen levels, APTT and prothrombin time in all of them. Functional PS was measured by clot based test with a kit supplied by Grifols and performed on Triturus equipment. Results: There was no statistically differences for age, parity, CBS and routine coagulation tests between the two groups. The results for protein S were:

	2 nd T x ±	3 rd T x ±	Normal controls x ±
PS by Elisa	65 ± 18.3	62 ± 16.5	106 ± 6.5
PS by clot method	43.8 ± 13.3	25 ± 14.6	97 ± 24

Functional PS perform by methods during second and third trimester were significantly lower than normal controls ($p < 0.001$). Functional PS by Elisa did not change from the second to the third trimester ($p < 0.5$). However functional PS by clot based test fell significantly from the second to the third trimester ($p < 0.001$) and was significantly lower than functional PS by Elisa in both trimester ($p < 0.001$). Conclusions: Pregnancy is associated to a decrease in functional PS. This abnormality is more pronounced using clot pregnancy. These differences could be explained by changes in coagulation factors. Based on our finding if a woman has thromboembolic event during pregnancy, this assays should not be used on the screen PS deficiency, because misdiagnosis and inappropriate treatment could result.

Blood Reviews 2001; 15: 97-102

Laboratory correlates in multiple myeloma: how useful for prognosis?

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Every year, in the United States alone, nearly 15,000 patients are diagnosed with multiple myeloma (MM) and at any given time there are about 40,000 patients living with the disease, with the disease, with most patients eventually dying disease progression. 1 Accurate predictive and prognostic models are needed for the better management of patients. Predictive factors are those that permit estimation of likelihood of response to therapy while prognosis factors allow for an estimation of likelihood of survival time. At present there is no clear distinction between predictive and prognosis factors in MM, and thus most studies have focused on the use of prognostic factors. In this review we will try to discuss some of the most relevant prognostic factors currently used. This review is not intended to be a comprehensive analysis, but will rather focus on some of the most relevant and novel ones MM is a heterogeneous disorder and the likely that many variants exist, but there is no generally accepted classification system that can predict reliably the expected outcome. There are some patients for whom novel treatment may be chosen due to poor prognostic features, while others may do reasonably well with currently available strategies, due to their longer expected survival.

Here we review the relation between laboratory features and prognosis in MM. However, we will also review other factor including characteristics unique to the malignant clone, features reflecting tumor burden, and host features.

Infectología

Rev Panam Salud Publica 2001; 9: 7-12

Phage typing of *Salmonella enteritidis* isolated from clinical, food, and poultry samples in Chile

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Since 1994 an extensive epidemic of infections with *Salmonella enteritidis* (*S. enteritidis*) has affected Chile. In order to understand the diversity of infective sources, the possible origin of the epidemic, and the epidemiological relationships between clinical, food, and poultry isolates, we carried out phage typing of three groups of samples: 1) 310 *S. enteritidis* clinical samples collected between 1975 and 1996, 2) 47 food isolates obtained during *S. enteritidis* outbreaks, and 3) 27 strains isolated in surveillance studies of poultry-raising establishments. With the clinical samples, a total of 13 phage types were identified, 2 isolates could not be typed, and 1 was considered atypical. The phage types that were identified most frequently were 1 (56.8%) and 4 (31.3%), trailed by type 8 (4.8%) and type 28 (1.9%). Over time and in different regions of the country there were major changes in the distribution of the phage types. In the first years of collection the only phage types registered were 8 and 28, which disappeared around 1980 and then began reappearing sporadically in 1996. With the gradual *S. enteritidis* expansion that started in 1988, in the central and southern areas of the country phage type 4 began to appear; that type had not been found before in Chile. In 1991 in

the northern area of the country phage type 1 began to predominate; it was another type that had not been reported before in Chile. In the food isolates the only phage types identified were 1 and 4, which were also the most common in the poultry isolates. Phage typing of *S. enteritidis* has proved to be useful in guiding the epidemiological analysis of the infections caused by this pathogen.

Inmunología

Immunol Lett 2001; 76: 187-92

Frequency of CCR5 gene 32-basepair deletion in Chilean HIV-1 infected and non-infected individuals.

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A 32-basepair deletion polymorphism in the CCR5 chemokine receptor gene (CCR5Delta32) has been identified and shown to have functional significance in determining susceptibility to infection by human immunodeficiency virus type 1 (HIV-1) and possibly in influencing disease progression in HIV-1 positive individuals. These findings led to an interest in studies of DeltaCCR5 allele geographical distribution in human population, for complete understanding of the role of CCR5 in HIV-1 epidemiology. Inter-population variation in CCR5Delta32 frequency may be a significant factor in the prediction of AIDS endemicity. In this report we assessed the frequency of DeltaCCR5 in a Chilean population (63 HIV-1 infected and 62 non-infected individuals). No homozygous CCR5 Delta32 individual was identified, and no significant difference was observed between HIV-1 infected (3/63) and non-infected (3/62) individuals for the heterozygote CCR5Delta32 state.

This is the first evidence of the contribution of DeltaCCR5 allele to the genetic background of the Chilean population, which is characterized by intense ethnic admixture and by gene flow from the European Spanish gene pool.

Neurología

Rev Neurol 2001; 33:716-9

Use of Citicoline in the prevention of delirium in hip fracture surgery in elderly. A randomized control trial

Díaz V, Rodríguez J, Barrientos P, Serra M, Salinas H, Toledo C, Kunze S, Varas V, Santelices E, Cabrera C, Farias J, Gallardo J, Beddings M, Leiva A, Cumsille MA

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INTRODUCTION: 40 to 50% of elderly with hip fracture present delirium. The morbimortality increase in patients who presented delirium. **OBJECTIVE:** To study the use of citicoline (CDP choline) in the prevention of delirium in elderly under hip fracture surgery. **PATIENTS AND METHODS:** A randomized control trial. The patients with hip fracture without dementia or another organic brain illness. The medication was administered 24 hours before and during 4 days after surgery. The dose was 1.2 g/day. The primary outcome measure was percentage of patients with delirium measured with Abbreviated Mental Test (AMT) and Confusion Assessment Method (CAM). The Mini Mental State (MMS) was used before and 4 days after surgery. All treatment comparisons were considered statistically significant at $p < 0.05$ calculating chi square and Wilcoxon test. **RESULTS:** The sample size was 81 patients (46 placebo and 35 citicoline). The mean age was 79.45 for the tested group and 79.97 for placebo. There was no statistically significant difference between groups with respect to ASA class of anesthesia. The incidence of delirium was 17.39% in placebo and 11.76% in citicoline group ($p = 0.6$). CAM and AMT at 1, 2, 3, 4 days post surgery was not

significant in placebo and citicoline group ($p=0.8$ and $p=0.34$).

CONCLUSION. In the present study the citicoline did not prevent or reduce the incidence of delirium in hip fracture surgery in elderly.

Rev Med Chil 2001; 129: 219 - 23

Application of music therapy in medicine.

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Music therapy is a science that has been applied since many centuries ago, but it has been organized as profession during the past century. This science studies the therapeutic effects of music in human beings. Professionals who practice this science are called «music therapists» and they must be trained not only in music theory and performance, but also in psychology, anatomy, research techniques, and other subjects. Today, we can find music therapy research in many areas such as the effects of music in children with autism, adults with psychiatric illnesses, elderly with Alzheimer and Parkinson disease, people with brain injuries, among others. Numerous studies demonstrate the functionality of music therapy in patients with neurological disorders. These studies show that music helps patients to gain control over their walking patterns after a brain injury, stimulates long and short term memory in patients with Alzheimer disease, and increase self esteem and social interaction in elders.

Rev Med Chil 2001; 129: 161 - 5

Prevalence of carotid atherosclerosis in patients with cerebrovascular occlusive disease.

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Background: Hispanics have a greater incidence of stroke and prevalence of intracranial atherosclerosis than whites. **AIM:** To study the prevalence of extracranial atherosclerosis among patients admitted to a hospital with an ischemic stroke. **Material and methods:** A prospective study in stroke patients admitted to a neurology ward in a University Hospital. All were subjected to a CT scan, carotid duplex-Doppler ultrasonographic examination with Doppler measurement of blood flow velocity, permeability and plaques. Cardiac emboli were searched with transthoracic and transesophageal echocardiography.

Results: One hundred ten patients (39 women), aged 67.5 ± 11.4 years old were studied. Stroke was atherothrombotic in 46 (41.8%), embolic in 30 (27.3%), lacunar in 27 (24.6%) and other type in 7 (6.4%). Ninety two patients (84.4%) had high blood pressure, 38% had high cholesterol levels, 35% had a cardiac disease and 26% were smokers. Thirty five subjects (31.8%) had a normal carotid ultrasonography, 46 (41.8%) had mural plaques, 16 (14.5%) had multiple plaques without occlusion, 13 (11.8%) had a partial occlusion and 7 (6.4%) had total occlusion. Logistic regression analysis disclosed no significant relationship between stroke types and carotid atherosclerosis. Age was the only significant predictor for carotid atherosclerosis. **Conclusions:** The prevalence of severe carotid atherosclerosis in this group of stroke patients was less than expected.

Oncología

Ann Oncol 2001; 12: 1403-6

A phase II study of gemcitabine in Gallbladder carcinoma.

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Background: Due to the high mortality rates from gallbladder carcinoma in Chile, we conducted a phase II trial to test the efficacy and safety of gemcitabine in patients with locally advanced or metastatic gallbladder carcinoma. **Patients and Methods:** From January 1998 to February 2000, 26 patients with metastatic or unresectable gallbladder carcinoma and no prior chemotherapy received gemcitabine 1,000 mg/m² over 30 minutes weekly for three weeks followed by a week of rest. **Results:** Patients received a median of 4.2 cycles (range 1-10). Out of the 25 patients whose response could be evaluated, 9 went into partial remission, an overall response rate of 36% (95% confidence interval (95% CI): 17.1% to 57.9%). In six (25.0%) patients, the cancer remained stable, and in 10 (40%) it progressed. Median survival time was 30 weeks (range 7-80+).

Hematological toxicities were mild, with no cases of febrile neutropenia or hemorrhage. However, four and one patient(s) had grades 1-2 and 3-4 neutropenia, respectively, and two patients had grade 2 thrombocytopenia. Nine patients experienced grade 1-2 nausea/vomiting, but were able to continue treatment. There were no toxic deaths.

Conclusions: In this phase II trial, gemcitabine is an active chemotherapy in metastatic or inoperable gallbladder carcinoma, with a manageable toxicity profile.

Rev Esp Geriatr Gerontol 2001; 37: 00

Evaluación de un programa de actividad física en adultos mayores.

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Objetivo: Evaluar un programa de actividad física en adultos mayores (AM) en parámetros de cambio a nivel de presión arterial, motilidad, índice de masa corporal y síntomas subjetivos.

Material y Método: Muestra no probabilística. Los participantes eran evaluados antes y después de finalizar las actividades. Se destacaron todos aquellos que presentaban patología grave no controlada, tal como insuficiencia cardíaca y hemiplejías. Se dividieron en dos grupos: uno tuvo dos reuniones semanales de natación durante tres meses y otro un programa de CAMPIRA (Camina y Respira) con actividades tres veces por semana durante tres meses.

Análisis estadístico: Wilcoxon signed test para evaluar los parámetros antes y después de la intervención, t test para diferencia de promedios y un alfa de 0,05.

Resultados: Participaron 116 mujeres y 18 hombres, el promedio de edad fue de 66 años y la moda de 68 años, 15.8% fumaban, 55.24% presentaban hipertensión arterial (HTA) en tratamiento, 82.84% ingerían algún tipo de fármacos, 23.88% bebían alcohol, 1.5% presentaban arritmia cardíaca y 5.22 diabetes mellitus. Las variables edema, disnea, ortopnea, nicturia, insomnio, depresión, síntomas osteoarticulares, disminuyeron en forma estadísticamente significativa. Peso promedio al ingreso de 68, 27 Kg (sd=10,30) al finalizar 67,73 (sd=13,37), t=2,47 (95% IC 0,1 a 0,9), Wixcoxon signesrank test para índice de masa corporal (IMC)

$z = -3,35$, $p = 0,001$, t test para presión arterial sistólica (PAS) promedio al ingreso de 140,07 (sd = 14,70) al egreso PAS = 132 (sd=15,98), t test = 4,35 $p = 0,0001$ (95% 2,8 a 7,5), presión arterial diastólica (PAD) promedio al ingreso = 81,75, al egreso = 80,75, t test = 1,4, $p = 1,16$. No significativo.

Conclusiones: La actividad física es altamente beneficiosa en coordinación, flexibilidad, PAS, pulso en esfuerzo y síntomas como nicturia, insomnio y dolores osteo articulares. La adherencia al programa presenta variaciones estacionales.

Psiquiatría

BMJ 2001; 322: 79-81.

«Patient knows best» detection of common mental disorders in Santiago, Chile: cross sectional study.

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Depression and anxiety are common in primary care but about half of patients with these disorders are not identified by primary care physicians.¹⁻² Mental disorder is more likely to be diagnosed in patients who present with or attribute physical symptoms to psychological causes.²⁻⁴ We investigated how patients' ways of understanding their health problems influenced the detection of common mental disorder by primary care physicians in Santiago, Chile.

Fundamenta Psychiatrica 2001, 4: 135-8

Paul Christian and the «School of Heidelberg»

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A brief historical account of the so-called «School of Heidelberg» in psychosomatics is presented. This tradition, associated with the names of Ludolf von Krehl, Richard Siebeck and Viktor von Weizsäcker as Director of the Institut for General Clinical Medicine, an expansion and institucionalisation characterized by the integration of physiological research and anthropological reflection which may be development of a «theoretical pathology».

Acta Bioethica 2001; VII: 159-69

Evaluación bioética de trabajos de investigación en seres humanos publicados en América Latina y el Caribe.

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La mención explícita de requisitos bioéticos en publicaciones biomédicas que involucran seres humanos y la incorporación de criterios éticos en la evaluación de trabajos científicos fueron investigadas en una muestra de revistas de la región de América Latina y el Caribe. Mediante un criterio de selección basado en indexación en bases MEDLINE y LILACS, obtención de texto completo y de instrucciones a los autores, entre otros, se identificó 41

revistas científicas, siendo revisados 625 artículos. Los resultados varían según se trate de ensayos con medicamentos (177 artículos) o estudios clínicos de diagnóstico o tratamiento no farmacológico (448), existiendo mayor preocupación de los investigadores en el primer caso (49% señala consentimiento informado y 46% revisión por comité de ética) que en el segundo (32% indica obtener consentimiento y 27% revisión por comité). Además, se aprecia mayor cumplimiento de disposiciones éticas en los ensayos clínicos fase II y III que en los fase IV. El análisis de las instrucciones a los autores, demuestra que en las revistas revisadas la mayor preocupación de los editores se refiere al consentimiento informado en las revistas indexadas en MEDLINE (50% pide este requisito) y la aprobación por un comité de ética en las indexadas en LILACS (en 43% se solicita). En general, el cumplimiento explícito de requisitos éticos llega como máximo al 50% y no hay referencias éticas en cerca del 45% de las publicaciones.

Acta Bioethica 2001; VII: 57-70

Las dimensiones bioéticas de la vejez.

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El aumento de los adultos mayores en las últimas décadas y la mayor longevidad de las personas traerá consigo una alta demanda de servicios en las etapas finales de la vida.

Existe una estrecha asociación entre envejecimiento, como proceso que cruza lo biológico, lo social y lo biográfico, y la muerte, que resulta en la práctica consubstancial a la cultura.

La vejez es una etapa de menoscabo y pérdida. Tanto en el plano de lo visible como en el de los

rendimientos, el cuerpo biológico deja de ser lo que era y se transforma en un sentido negativo.

Junto al ámbito biológico y el biográfico, existe un tercero, el ámbito social, al que cabe llamar valórico.

Crucialmente, la vejez es etapa biográfica, evidenciada por ciertos atributos exteriores. De acuerdo al reloj social de cada comunidad tiene asignados deberes y derechos. Toda norma de comportamiento carece de sentido si no hay libertad para aceptarla o rechazarla. Así se puede ejercer el diálogo, que constituye la vida social; cuando se pierde, resiente la propia identidad como agente moral o como persona autónoma.

La ética de la calidad de vida en la vejez debe fundarse y fundamentarse sobre expectativas sobrias, modestas y realizables.

El diálogo es la herramienta más importante que el discurso bioético ha venido a aportar a las sociedades modernas. Si bien la medicina es una metáfora social básica, las formas de ayuda y de inserción social deben incorporar una sensibilidad especial hacia las relaciones de poder, los contextos en que se interpretan las relaciones humanas y los factores culturales que inciden en el trato otorgado a las personas de edad avanzada.

Rev Med Chil 2001; 129: 680-4

Ethical aspects of biomedical research. Frequent concepts in written norms.

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Most codes and declarations pertaining to the ethics of research involving human subjects have

been formulated in response to specific events mostly of a painful or embarrassing nature. Several concepts appearing repeatedly in their texts are highlighted in this paper: principles of respect for persons, beneficence and justice, vulnerability and research propriety. Along with some comments on current revisions of many international guidelines and the role of bioethics committees, a plea is made to have a proactive rather than a reactive stance in the ethical regulation of biomedical research.

Acta Bioethica 2001; año VI, n° 2

Sobre constructivismo moral: Necesidad de una axiografía empírica.

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Este trabajo presenta una aproximación al proceso de construcción valórica tomando como fundamento el lenguaje natural, propio del mundo vital. Se sostiene que este lenguaje refleja las concepciones antropológicas implícitas y explícitas de una comunidad.

Trazando un paralelo entre la atribución de significado técnico a las palabras en las tecnociencias, la construcción del léxico emocional y el lenguaje valórico, se atribuye a la deliberación y el diálogo, como herramientas bioéticas, la misión de incrementar el constructivismo moral de las sociedades pluralistas y ampliar sus potencias creativas de opciones. Ello no implica un relativismo moral, pero sugiere la necesidad de contextualizar los preceptos y principios y estudiar empíricamente las formas en que se articulan los dilemas y se proponen soluciones.

Se proponen algunas líneas de desarrollo para una axiografía empírica con base en el lenguaje como legítimo componente de estudios sociales en bioética

Palabras clave: Constructivismo, Axiografía, Lenguaje, Antropología.

Acta Bioethica 2001; año VI, n° 2

Ética de la publicación médica: legalidad y legitimidad

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Resumen

Este artículo propone los conceptos de legalidad y legitimidad para el análisis ético de las publicaciones médicas. Legalidad se refiere al cumplimiento de procedimientos aceptados por la comunidad científica relativos a validez, confiabilidad y solvencia del trabajo de investigación. Legitimidad alude a la propiedad con que en el contenido de la publicación se respetan principios éticos.

Este análisis es especialmente relevante en estudios sobre sujetos humanos pero no está restringido a ellos. Junto con destacar el papel del editor científico como «gatekeeper» de legalidad y legitimidad, se propone una taxonomía de las publicaciones científicas atendiendo a su carácter, a su estilo y a su audiencia. La importancia de examinar bioéticamente las prácticas de publicación reside en que reflejan el estado de la disciplina médica, el respeto social y la posibilidad de mantenerla. Se destaca que las normas escritas reflejan aspiraciones y sugerencias y es errado concebirlas como obligatorias. El resguardo del carácter ético de las publicaciones es posible solamente educando

a los investigadores sobre sus obligaciones y compromisos.

Palabras clave: Investigación médica, Publicaciones científicas, Bioética.

Rev Esp Salud Pública 2001; 75: 187-91

El desafío bioético de la equidad: su relevancia en salud pública.

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This paper presents the bioethical discourse as a stimulus to dialogue between beliefs, ideologies, rationalities, and persons. Among its dominant themes, it may be distinguished between those related to communities and those related to individuals. Although equity belongs into the former, it finds expression in individual life as solidarity and empathy. It is possible to formulate guidelines for research in social science and epidemiology distinguishing between values, principles and behavior rules, which find expression in the notion that bioethical reflection must anticipate challenges and dangers and not simply respond to technoscientific developments.

Br J Psychiatry 2001; 178: 228-33

Common mental disorders in Santiago, Chile: prevalence and socio-demographic correlates.

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BACKGROUND: There have been relatively few surveys in Latin America that have attempted to estimate the prevalence of psychiatric morbidity in private households. **AIMS:** To determine the prevalence of common mental disorders and socio-demographic correlates among adults from Santiago, Chile. **METHOD:** Cross-sectional survey of private households with a probabilistic sampling design was used. Common mental disorders were measured using the Clinical Interview Schedule-Revised (CIS-R). **RESULTS:** Three thousand eight hundred and seventy adults were interviewed. Twenty-five per cent were CIS-R cases and 13% met criteria for an ICD-10 diagnosis. Low education, female gender, unemployment, separation, low social status and lone parenthood were associated with a higher prevalence. **CONCLUSIONS:** Prevalence rates were higher than those found in urban areas of Great Britain, both for ICD-10 diagnoses and 'non-specific neurotic disorders'. Similar socio-demographic factors were associated with an increased prevalence of common mental disorders in Chile as in the UK. There is a need to unify methodologies to be able to compare results internationally.

Radiología

AJR Am J Roentgenol 2001; 176: 653-9

Tissue harmonic imaging: is it a benefit for bile duct sonography?.

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Objective: Our purpose was to compare tissue harmonic imaging with conventional sonography of the biliary tract.

Subjects and Methods:

Eighty patients with suspect biliary disease had conventional sonography and tissue harmonic imaging with an ATL 3000 or 5000 scanner in a 6 month interval. Final diagnoses included malignant biliary obstruction (n=30), choledo-cholithiasis (n=16), sclerosing cholangitis (n=4), normal or nonobstructed ducts (n=16), and miscellaneous conditions (n=14). Similar images were taken with each technique in terms of projection, field of view, focal zone selection, and evidence of disease. Two separate observers blinded to patient data and technique reviewed and graded images individually for the appearance of the bile ducts, the length of the visible duct, the appearance of the duct wall, the presence of any intraluminal masses, and the appearance of associated acoustic shadows. Images were graded from zero to 3, with 3 being the best.

Results:

The median of the 546 tissue harmonic images was one grade higher than the median for the corres-

ponding conventional images ($p < 0.0001$). Improvements with tissue harmonic imaging included better sharpness of the duct walls ($p < 0.01$), a clearer lumen ($p < 0.0001$), identification of a longer length of the common bile duct ($p < 0.0001$), and improved detection of intraluminal masses ($p < 0.006$). Acoustic shadows were better defined and blacker with tissue harmonic imaging ($p < 0.007$).

Conclusion:

Improvement in contrast and reduction of side lobe artifacts with tissue harmonic imaging enhance visualization of the biliary ducts. Tissue harmonic imaging is now our routine technique for bile duct examination.

Reumatología

Clin Exp Rheumatol 2001; 19: 673-80

Characterization of human serum dipeptidyl peptidase IV (CD26) and analysis of its autoantibodies in patients with rheumatoid arthritis and other autoimmune diseases.

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OBJECTIVES: To assess the serum levels, specific activity and other characteristics of dipeptidylpeptidase IV (DPP IV/CD26), an ectoenzyme that plays a critical role in the modulation and expression of autoimmune and inflammatory diseases, from patients with rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), primary Sjogren syndrome (SS) and normal controls. To study the possible underlying molecular basis if significant differences were found. **METHODS:** Serum DPP IV was purified by ion-exchange and affinity chromatography techniques and its specific activity and sera levels were determined by an enzyme-linked assay (ELISA). The enzyme was further analyzed for its sialic acid content, its adenosine deaminase binding capacity and its electrophoretic mobility. The levels of circulating IgA, IgG, and IgM anti-DPP IV autoantibodies were determined by an ELISA technique.

RESULTS: The median serum levels of DPP IV in RA patients was similar to controls (0.85 microg/ml versus 1.03 microg/ml, $p = \text{n.s.}$); in SLE and SS

patients the enzyme serum levels were reduced to nearly one half of controls ($p < 0.001$). DPP IV specific activity was significantly reduced in sera from RA patients when compared with those of SLE, SS and normal sera (12.24 versus 16.5, 19.69 and 16.34 mol pNA $\times 10^{-4}$ /min/mol respectively, $p < 0.005$). Both RA and SLE enzymes were hypersialylated, but only RA DPP IV augmented its specific activity to close to control values after desialylation with V. cholerae neuraminidase. Sera from all patient groups contained anti-DPP IV autoantibodies, but only those of the IgA isotype were significantly higher than those found in normal subjects. CONCLUSION: The specific activity of serum DPP IV was decreased only in RA patients, although its levels were similar to normal controls. While both RA and SLE DPP IV were hypersialylated, desialylation restored the specific activity only of RA DPP IV. This finding suggests that different specific glycosylation sites in the enzyme might be involved as the underlying mechanism of the decreased enzyme specific activity of RA patients. The differences in DPP IV levels observed between RA and SLE patients seem to reflect a different status of T cell activation in both diseases.

Am J Physiol Heart Circ Physiol 2001; 280: H851-8

Reduced Na-K pump but increased Na-K-2Cl cotransporter in aorta of streptozotocin-induced diabetic rat.

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The activities of Na-K-ATPase and Na-K-2Cl cotransporter (NKCC1) were studied in the aorta, heart, and skeletal muscle of streptozotocin (STZ)-induced diabetic rats and control rats. In the aortic rings of STZ rats, the Na-K-ATPase-dependent (⁸⁶Rb/K uptake was reduced to $60.0 \pm 5.5\%$ of the control value ($P < 0.01$). However, Na-K-ATPase activity in soleus skeletal muscle fibers of STZ rats and paired control rats was similar, showing that the reduction of Na-K-ATPase activity in aortas of STZ rats is tissue specific. To functionally distinguish the contributions of ouabain-resistant ($\alpha(1)$) and ouabain-sensitive ($\alpha(2)$ and $\alpha(3)$) isoforms to the Na-K-ATPase activity in aortic rings, we used either a high (10^{-3} M) or a low (10^{-5} M) ouabain concentration during (⁸⁶Rb/K uptake. We found that the reduction in total Na-K-ATPase activity resulted from a dramatic decrement in ouabain-sensitive mediated (⁸⁶Rb/K uptake ($26.0 \pm 3.9\%$ of control, $P < 0.01$). Western blot analysis of membrane fractions from aortas of STZ rats demonstrated a significant reduction in protein levels of $\alpha(1)$ - and $\alpha(2)$ -catalytic isoforms ($\alpha(1) = 71.3 \pm 9.8\%$ of control values, $P < 0.05$; $\alpha(2) = 44.5 \pm 11.3\%$ of control, $P < 0.01$). In contrast, aortic rings from the STZ rats demonstrated an increase in NKCC1 activity ($172.5 \pm 9.5\%$, $P < 0.01$); however, in heart tissue no difference in

NKCC1 activity was seen between control and diabetic animals. Transport studies of endothelium-denuded or intact aortic rings demonstrated that the endothelium stimulates both Na-K-ATPase and Na-K-2Cl dependent (86)Rb/K uptake. The endothelium-dependent stimulation of Na-K-ATPase and Na-K-2Cl was not hampered by diabetes. We conclude that abnormal vascular vessel tone and function, reported in STZ-induced diabetic rats, may be related to ion transport abnormalities caused by changes in Na-K-ATPase and Na-K-2Cl activities.

Urología

J Urol 2001; 165: 121-32

Histologic analysis of prostate tissue after ablation using permanently implanted thermal Rods.

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Introduction and objectives: We have evaluated the histological tissue destruction of the human prostate induced by thermal rod therapy for prostate cancer. The technique involves the transrectal ultrasound guided placement of permanent temperature self-regulating rods in the prostate; the rods are then heated by an extra corporeal alternating magnetic field. various rod temperatures, treatment times and implantation schemes were evaluated in relation to the histological tissue destruction.

Methods: Twenty-four patients with biopsy confirmed cancer that were scheduled for radical prostatectomy were first given thermal therapy. The standard RP was performed 4 to 60 days after the thermal treatment. Histological analysis was performed on whole mount specimens. Sections were taken with the rods in place in order to correlate the rod location to the histological changes. Variables investigated were: rod operating temperatures of 55, 60 and 70° C various treatment times (15 to 60 min); multiple treatments (1, 2 or 4); and various implantation densities and rod locations.

Results: Twenty-four patients were treated and analyzed. Single rods produced little necrosis (55 and 60° C) or variably shaped necrosis (70° C). Arrays of 55 and 60° C rods produced non-confluent

necrosis around each rod. Arrays of 70° C rods placed end-to-end, within 1 cm of each other produced consistent necrosis inside off quickly and necrosis the array. At the edge of the array temperatures dropped was limited to 1 to 2 mm from the rods placed at the capsule. Urethra endothelium was preserved if rods were placed 5 to 10 mm from the urethra. Necrosis varied from complete coagulation necrosis with the loss of normal architecture to recognizable cells with damaged nuclei. A single treatment of 1 hour was necessary to produce consistent necrosis.

Conclusions: Treatment with arrays of 70° C rods for 60 m produces consistent necroses of large volumes of prostate tissue even up to the capsule without damaging surrounding tissue.