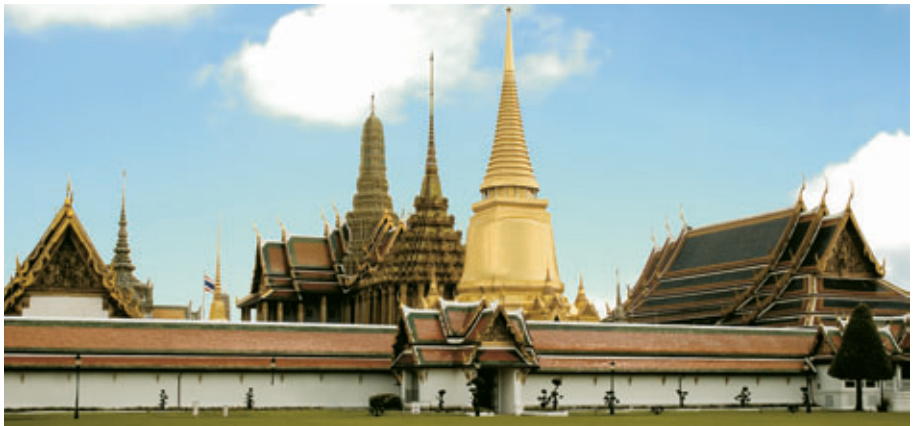
WORLD NEUROLOGY

THE NEWSLETTER OF THE WORLD FEDERATION OF NEUROLOGY

VOLUME 21, NUMBER 4, DECEMBER 2006



Destination Thailand: XIXth World Congress of Neurology, 2009, Bangkok

Neurology Training Program at the National Autonomous University of Honduras

2005 Report

Neurology Training Program EEG Lab Donated by the Dutch Neurological Society

A 32-channel digital Electroencephalogram (EEG) machine was donated by the Dutch Neurological Society to the Neurology Training Program at Honduras based on the recommendation of the Education Committee of the World Federation of Neurology. The donation was received by the Honduran Neurological Association, the Neurology Training Program, and the Postgraduate Direction at the National Autonomous University of Honduras. This equipment was bought directly by the WFN administrative office from the Caldwell Company and was inaugurated on February 17, 2005, in a special ceremony chaired by Prof. Theodore Munsat (Chairman of the WFN Education Committee), Prof. Margarita Oseguera (Director of the

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Drs. Marco Medina, Efrain Bu (Chief of the Internal Medicine Department) and Theodore Munsat during the inauguration of the EEG lab in February 2005.

Acknowledgement: ***World Neurology*** **is published with a generous grant from the Japan Foundation for Neuroscience and Mental Health.**

PRESIDENT'S COLUMN

The Joint World Stroke Congress in Cape Town, South Africa, in October 2006 symbolizes three major challenges to neurology, the global stroke problem, the urgent need for a roadmap for neurology in Africa, and the importance of rehabilitation for patients with neurological disorders.

Stroke is now second only to ischemic heart disease as a leading cause of death, accounting for 5.7 million deaths each year. Two thirds of these deaths occur in countries with low resources. As approximately 80 % of patients survive the acute phase, over 50 % of them with varying degrees of disability, stroke is without comparison the major brain disorder in terms of costs to society. The number of stroke survivors in a society translates directly into the actual economic burden of stroke (Neurology Atlas 2004).

In addition, stroke is a growing epidemic. As pointed out by Professor Vladimir

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ALSO IN THIS ISSUE:

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EDITORIAL

A detailed report of the WFN Neurology Training Programme in Honduras during 2005 is a highlight of this issue. It demonstrates the tremendous input made by the WFN and the equally excellent outcome this has produced in the training of neurologists in that country. Moreover, generous donations from some WFN member countries and the voluntary efforts of neurologists in others have contributed immensely to the success of this programme which addresses one of the Federation's fundamental goals. Special thanks and congratulations go to Ted Munsat, Chairman of the Education Committee. His steady, ongoing efforts have produced these results. I do hope that such training programmes can be initiated as well in black African countries about which President Johan Aarli has written in his column. Thanks are also due to the Horowitz Foundation for its contribution and to the Spanish Neurological Society for its Educational Grant.

Stroke has been recognized as a major killer for generations. Its incidence in the under-resourced countries of the world is increasing as a burden because of smoking and poor diet, leading to the spread of diabetes and less care for hypertension. The burden is going to increase further as highlighted by Professor Vladimir Hachinski in the last issue. There is therefore a need for WHO, WFN and State Governments to combine their efforts to prevent this future catastrophe, and in addition the healthcare systems of each country need to be improved to reduce this menace.

Abstracts of some of the papers published recently in JNS are also included in this issue: Increased risk of death in community-dwelling older people with white matter hyperintensities (WMH) on MRI is an interesting proposition published by Kerber K. and colleagues. All neurologists and radiologists have noticed these white matter hyperintensities in elderly people many a time, even without any neuro deficit, when such patients report for vertigo or dizzy spells. However the authors of this paper, after a thorough study of more than a decade, have confirmed the direct relationship of these white matter intensities and the quantum of falls, gait imbalance and eventually highest mortality compared with those who had milder to moderate WMH. Those with the highest degree of WMH had mortality mostly from vascular disease. Therefore WMH in elderly people should be taken seriously and preventive measures taken well in time.

Dementia due to vascular inefficiency (multi-infarct), Alzheimer disease is well known in addition to the metabolic, nutritional, traumatic causes and remote effects of malignancy. We have also come across patients complaining of cognitive decline following chemotherapy for malignancy but it was never taken seriously. Some of the recent studies have shown convincing results that this does happen in vivo and vitro and the term 'chemobrain' has been coined. Dr Daniel Silveman and his co-authors have recently published their PET scan finding in *Journal of Breast Cancer Research and Treatment* of women who received chemotherapy as surgery for breast cancer compared with those who only had surgery and some control women who had neither surgery nor cancer. These workers, from the University of California, established that women who received chemotherapy had lower metabolic rates as compared to those who did not receive it. Similarly Mark D. Noble and his colleagues from the University of Rochester Medical Center recently reported their findings in the *Journal of Biology* that brain cells and tumor cells grown in the laboratory and exposed to the three common cancer drugs—carmustine, cisplatin and cytarabine—showed 60-90 per cent reduction in viability of brain cells but little effect on tumor cells and that to kill 40-80 per cent of tumor cells required chemotherapeutic doses which killed 70-100 per cent of the brain cells. Both these studies have given credibility to the clinical studies of Dr Stewart Fleishman of Beth Israel Medical Center and St Luke's Roosevelt Hospital Center in New York and Dr Masatoshi Inagaki of National Cancer Center Hospital in Shikohu, Japan who reported in the journal *Cancer* recently. The latter have reported that one year after the cancer chemotherapy, the brain areas of prefrontal, parahippocampus and cingulated gyri involved in cognition processes were significantly smaller in women who received treatment. Several other studies have shown that from 40-80 per cent of cancer patients receiving chemotherapy suffer from chemobrains with symptoms of mental fuzziness, memory loss and cognitive decline. This is now an established fact from various studies that chemotherapy for cancer does show cognitive decline in recipients which is variable and is due to chemotherapy rather than remote effects of malignancy which is also noticed in some patients who received no chemotherapy.

My wife, Amar, and I extend best wishes and a prosperous and healthy New Year 2007 to all the readers of *World Neurology.*

Jagjit S. Chopra, FRCP, PhD
Editor-in-Chief

WORLD FEDERATION OF NEUROLOGY JUNIOR TRAVELLING FELLOWSHIPS—2007

The WFN is once again offering ten Junior Travelling Fellowships for young neurologists from developing countries to travel to a WFN approved meeting in 2007. Applicants should hold a post not above that of Associate Professor and should not be over the age of 42 years. Applications should include the name and dates of the proposed meeting to be attended, a CV and bibliography, and a letter of recommendation from the Head of the applicant's department. If a paper or poster is to be presented, the applicant should include an abstract. An estimate of expenses, to a maximum of £1,000, should be made. Applications should be sent to the WFN office to arrive by 19th February 2007. Awards will be announced in mid-March.

(President's Column

contd from page 1)

Hachinski, the Vice President of World Federation of Neurology, in the last issue of *World Neurology,* the predicted number of people who will die from stroke will increase to 6.7 million by 2015.

In some countries, stroke patients are treated by neurologists, in others also by internists, cardiologists or geriatricians. This may be of minor importance, as the number of stroke patients is so huge. More important is the demonstration that stroke patients should be treated by a transdisciplinary team in a stroke unit. All established neurological departments should have a functioning stroke unit. An annual World Stroke Day was proclaimed, also pointing out how much can be done to prevent and treat stroke, and rehabilitate those who suffer one.

The Chairman of the Commission of the African Union, Alpha Oumar Konaré, claimed recently that Africa now confronts the world's most dramatic public health crisis. The fact that the Stroke Congress took place in South Africa is symptomatic for the focusing upon health problems in Africa. There are a few examples of public health solutions that work in the African setting, such as the elimination of river blindness and to some extent also leprosy, but the HIV/AIDS problems now represent a serious obstacle to economic development in the African continent. The new Director-General of the WHO, Dr. Margaret Chan, has declared that she wants WHO to be judged by the impact their work has for the health of people in Africa. WFN will have the development of neurology in Africa as a leading vision for the next 4-year period.

The Neurology Atlas revealed that neurological rehabilitation services are weakest in the low income countries, and especially in Africa. No neurological rehabilitation service is present in 81.2 % of countries in Africa. Furthermore, while social insurance is the most important source of financing health services in Europe, none of the responding countries in Africa use social insurance as the primary method of financing. Out-of pocket expenditure is still the primary method of financing in 84.2 % of low-income countries. This is likely to result in further inequity of neurological services.

WFN will organize an Africa Meeting in London December 15, 2006. The intention is to identify individual public health projects where the international neurology community can assist in the development of neurological service on the continent. Individual projects will then be evaluated, modified when necessary and applied in collaboration with WFN delegates and the local health authorities. We also expect that the new WHO/WFN report, "Neurological Disorders: Public Health Challenges" will be published early in 2007.

To quote the Regional Director of the WHO Regional Office for Africa, Dr. Luis Gomes Sambo, "We know what the challenges are, and we know how to address them - but we also recognize that Africa's fragile health systems represent an enormous barrier to wider application of the solutions."

Johan A. Aarli, M.D.
President WFN

(Neurology Training Program at the National Autonomous University of Honduras

Contd from Page 1)

Postgraduate Direction at the National Autonomous University of Honduras), Prof. Efrain Bu (Chairman of the Internal Medicine Department at Hospital Escuela), and Prof Marco T. Medina (Director, Neurology Training Program). There was a special recognition of the Dutch Neurological Society's donation.

Since it was installed, this EEG machine has been an invaluable tool both for the training of residents and to improve the standard of care with patients with altered consciousness states and epilepsy at the Hospital Escuela, where more than 50 patients have been evaluated. The residents have been trained in the EEG technology basics and are able to perform the tests independently. Training and supervision has been given by professors with subspecialty in neurophysiology (Dr. Marco T. Medina, Reyna Durón and Rebeca Hernández).

Facilities and equipment at the EEG lab of the Neurology Training Program office at Hospital Escuela.

Throughout 2005, EEGs have been performed in pediatric and adult patients with confusional states, coma, status epilepticus, movement disorders and other syndromes. EEG interpretations are supervised by the professors and are made available to doctors in the emergency rooms, intensive care units, hospitalization wards and outpatient clinics. Research projects have also benefited from this equipment. Patients enrolled for epilepsy projects both from Hospital Escuela and the Salama epilepsy project have had their tests done with this equipment.

Research Supported By Local and International Grants

Research projects have been greatly supported by local and international funds granted to the Neurology Training Program since its creation. Research in the fields of neuroepidemiology, epilepsy, stroke, dementia, neurocysticercosis, migraine and other have been developed and both residents and professors have published them in local and international journals and congresses. Table 1 shows a list of references for these projects. International support has been especially critical for research and thesis during the past four years, including funds from:

Residents performing EEG studies on patients at the pediatric emergency room, under the supervision of the professors.

- Horowitz Foundation approved in 2004
- Spanish Neurological Society approved in 2005
- University of California at Los Angeles, Genetics/Genomics Lab, received since

2002 (Dr. Antonio V. Delgado-Escueta).
■ National Institutes of Health, U.S. (Dr. Eugene Major, Virology Dept.)
■ National Institute of Neurology and Neurosurgery at Mexico (Dr. Maria E. Alonso, Genetics Dept.)

Table 1: Thesis protocols by the Neurology Training Program

1. Hesse H, Medina MT, Lawrence D, Major EO, Bu-Figueroa E, Pavon R. Clinical and neuropsychological characterization of Honduran patients with dementia associated to VIH-1 and its correlation with inflammatory molecules in CSF and serum. Rev Med Post UNAH 2004;8(1):11-21.
2. Molina-Cruz L, Medina MT. Prevalence and incidence of epilepsies in Honduras. Rev Med Post UNAH 2004;8(1)40-52.
3. Durón RM, Medina MT, Delgado-Escueta AV, Alonso E, Tanaka M, Bai D. Phenotypes and genotypes of the generalized epilepsies in a cohort of families from Honduras. Rev Med Post UNAH (in press).
4. Su H, Medina MT, Alonso ME. Apolipoprotein E in Honduran patients with Alzheimer type dementia. Rev Med Post UNAH (in press).
5. Rivera A, Medina MT, Bu J. Prevalence and etiology of epilepsy in urban Honduran. The Kennedy Study.
6. Zelaya A , Medina MT. Stroke prevalence in the Urban area of Kennedy, Tegucigalpa. Rev Med Post UNAH (in press).
7. Padilla R, Medina MT. Risk factors for Stroke in an urban community of Kennedy, Tegucigalpa. Rev Med Post UNAH (in press).
8. Enamorado T, Medina MT, Aguilar M. Comorbidity of Migraine and Depression: an epidemiological Study in Tegucigalpa. Rev Med Post UNAH (in press).
9. Alvarez A, Medina MT, Durón RM. Etiology of epilepsies in Salamá after a 7-year interventional program. Rev Med Post 2006 (submitted).

Dr. Marco Medina and Carrie Becker during the evaluation of the research presentations of residents during the 2005 National Neurology/ Epilepsy Congress at Tegucigalpa, Honduras.

Horowitz Foundation educational grant

The Horowitz Foundation grant funded two thesis protocols. Dr. Aleyda Rivera performed her thesis on the prevalence, incidence and etiology of epilepsy in one urban community (see references). Her study showed the epilepsy prevalence in Colonia Kennedy, which is a community under a long-term follow-up by three generations of residents. Dr. Rivera found that prevalence was 10.8 x 1000 and that main etiologies were Neurocysticercosis 26.6%, idiopathic 20%, post-traumatic 13.3%, etc

Dr. Reyna Durón preparing DNA from Honduras families under study for epilepsy genes.

Dr. Roberto Padilla did his thesis on the risk factors for stroke in the same urban community, finding a prevalence of 5.7 x 1000, and hypertension the main risk factor (OR 8.02).

Additionally, the Horowitz grant partially supported population-based projects about the prevalence of stroke, hypertension, treatment gap in epilepsy, neurocysticercosis, epilepsy genetics and the Salamá population-based project. These studies have been presented in several congress and many are in process of final publication. Many of these research projects involve not only residents, but also general practitioners and students from the Student Scientific Association at the School of Medicine.

Spanish Neurological Society educational grant

Funds from Spain have supported the thesis of two residents. Dr. Allan Alvarez is studying the etiology of epilepsies detected eight years after the interventional program started in Salamá. This community constitutes a cohort since 1996. A previous study did a house-to-house survey to detect new epilepsy cases and Allan Alvarez coordinated a study of patients with EEGs and CT scan paid with SEN funds and local funds

Residents have been trained to perform EEG studies independently.

from private donors. Preliminary data is shown in the appendix of this report.

Dr. Eunice Ramírez is performing her thesis about the risk factors for stroke in a rural community (Salamá). Her study will finish by 2007. She is performing epidemiological, clinical and lab tests for stroke and risk factor determinations. Drs. Marco Medina, Reyna Durón and Luis Rodríguez (Honduras) in collaboration with Drs. Antonio Delgado-Escueta and Julia Bailey (UCLA) are studying epilepsy genes in Honduran families, especially in families with absence and myoclonic epilepsies. Honduras is a key member of the GENESS International Consortium and in September 2005, Dr. Medina presented the discovery of a non-sense mutation for the Myoclonin/ EFHC1 gene in one Honduran family with childhood absence epilepsy that evolved to juvenile myoclonic epilepsy (ILAE International Epilepsy Congress, Paris 2005).

WFN Annual Evaluation of Residents

As it has been done since its creation, an ad-hoc WFN commission chaired by Prof. Theodore Munsat and Prof. Alberto Portera Sanchez evaluated the residents together with national and visiting professors. Residents had a practical evaluation consisting of examination and discussion of a case randomly chosen from the hospitalization wards. During the last

Dr. Antonio Delgado-Escueta (UCLA) and Dr. Charlotte Dravet (Centre Saint Paul, Marseille) during the 2005 evaluation of the residents.

February 2005 WFN evaluation Dr. Charlotte Dravet (Centre Saint Paul, Marseille) and Dr. Antonio Delgado-Escueta (UCLA) evaluated Luis Rodríguez (II year Resident) and Allan Alvarez (IV year Resident). and Prof Theodore Munsat evaluated Temis Enamorado (IV year resident) and Eunice Ramirez (III year resident).

The evaluation showed satisfactory results, since residents accomplished the expected knowledge and skills for their academic year level. For this occasion, we also had the first Pediatric Epilepsy teaching course with Dr. Charlotte Dravet from February 14th to 16th. Residents also presented their paper in the Epilepsy/Neurology Congress organized for the dates. On February 18th we had the Ramon y Cajal Congress which was a great success. Dr Ricardo Madrid our Professor in Neuropathology received the Ramon y Cajal award.

Residents and visiting professors during the 2005 Annual Neurology/Epilepsy Congress and evaluation of the Neurology Training Program.

Neurocysticercosis Task Force

This group was constituted by the WFN in 2003 and its members are Dr. Marco T. Medina (chairman), Dr Reyna Durón (Honduras), Dr. Héctor Hugo García (Cysticercosis Working Group of Perú), Dr. Theodore Nash (NIH), Dr. Antonio V. Delgado-Escueta (University of California at Los Angeles), MSc Susan Pietsch-Escueta (Los Angeles Epilepsy Foundation) and Dr. Antonio Gil Nagel (SEN). On February 17th we invited the Peruvian Minister of Health Dr. Pilar Mazzetti to visit Honduras. On behalf of her government, she signed an agreement of cooperation with the Minister of Health of Honduras Dr. Merlin Fernandez. Under the main subjects of this agreement is the Prevention and Control Cysticercosis Project. Professor Munsat and Dr Hector H. García were there, together with the Honduran Ambassador in Peru, Mr. Juan José

Dr. Pilar Mazzeti (Minister of Health of Peru) and Dr. Merlin Fernández signing the collaboration agreement for the control of cysticercosis.

Cueva. On February 19th and 20th Dr Antonio Gil Nagel, Dr Theodore Nash, Dr Hector Hugo Garcia, Dr Antonio Delgado Escueta, Dr Pilar Mazzetti, Dr R Duron and Dr. Medina had a WFN Neurocysticercosis Task Force planning meeting in Roatán-Honduras and had discussions for the structure of an educational program including a book on Neurocysticercosis. The next workshop will take place in the U.S. next year.

Improving and Increasing the Faculty Staff

The Faculty staff has been reinforced with the participation of more local professors and visiting professors. The program continues to be strongly supported by former key faculties consisting of an accomplished and motivated group of specialists trained in different fields of Neurosciences.

- Dr. Jeaneth Bu, Neuroradiology
- Dr. Claudia Amador, Neurology
- Dr. Rebeca Hernández, Clinical Neurophysiology
- Dr. Ricardo Madrid, Neuropathology.
- Dr. Javier Sánchez, Neurosurgery
- Dr. María del Carmen Montoya, Genetics
- Dr. Francisco León Gómez, Neuropsychiatry
- Dr. Mauricio Varela, Professor and Chair of the Internal Medicine Residency.
- Dr. Efraín Bu, Infectologist, Professor and Chief of the Internal Medicine Department at Hospital Escuela.
- Dr. Edgardo Naranjo (Physiotherapy)
- Dr. Rina de Lobo (Physiotherapy)
- Dr. Mario Aguilar (Psychiatry)
- Dr. Americo Reyes (Psychiatry)
- Dr. Edgardo Navarrete (Ophthalmology)
- Dr. Manfredo Turcios (Emergency)
- Dr. Martha Matamoros (Pediatrics)
- Dr. Carlos Orellana (ICU)
- Dr. Lucas Zelaya (Otoneurology)

Neurologists graduated from the Program joining the faculty team.

Some are joining for some hours a week and are helping coordinate the academic session and the grand rounds.

- Dr. Aleyda Rivera, now working as a neurologist at Hospital Escuela
- Dr. Lázaro Molina, works at the Neuropsychiatry Hospital and helps with grand rounds with the residents at Hospital Escuela.
- Dr. Roberto Padilla, Neurologist.
- Dr. Reyna Durón, Neurologist with Fellowship in Epilepsy and Clinical Neurophysiology thanks to an educational grant from Prof. Delgado-Escueta at UCLA.

Visiting Professors 2005

- Neurosurgeon and Prof. Otto Spoerry (Switzerland).
- Dr. Antonio Delgado-Escueta (UCLA) and Dr. Charlotte Dravet (Centre Saint Paul, France)
- Dr. Julia Bailey, Epidemiologist and Genetic Mathematician from UCLA.
- Dr. Kenton Holden, Neuropediatrician and Geneticist from the Medical University of South Carolina and Director of the Greenwood Genetic Center.
- Dr. Antonio Gil Nagel, Sociedad Española de Neurología
- Dr. Hector Hugo Garcia (Peru Cysticercosis working group)

Improving the standard of patient care and supporting patient groups and foundations

Helping the development of neurology care at Hospital Escuela is not the only goal of the Neurology Training Program. Helping both urban and rural communities through studies and cohorts that take interventional programs as well

Patients at the first conference of the Epilepsy Foundation.

It is with great sorrow that *World Neurology* must report the sudden death on December 13th, 2006 of Professor Ian MacDonald. A fuller tribute will appear at a later date.

helping support groups for patients is a new advancement.

Recently, patients and health personnel including members of the Honduran Epilepsy Society and the Honduran Neurological Association established the Epilepsy Foundation. The enthusiasm and need shared by this group will help develop better education and epilepsy care in Honduras. Also a support group for patients with Multiple Sclerosis was founded recently.

Training in Neuromuscular Disorders for Dr. Claudia Amador, Professor of the Neurology Training Program

Hospital San Pau e Sant Creu (Barcelona, Espana), where Dr. Claudia Amador is training in Neuromuscular Disorders.

Dr. Claudia Amador started her training on neuromuscular disorders on June 1st, 2005 at Hospital San Pau e Sant Creu (Barcelona, Spain) under tutoring of Dr. Isabel Illa, Chairman of the Department of Neuromuscular Disorders. Her training includes clinical activities and training in clinical neurophysiology. When Dr. Amador retuns to Honduras in 2006, she will come back to her position at the Neurology Service in Hospital Escuela and as Professor for the Neurology Training Program.

Rotations of Residents to Neurology Departments in Other Countries

As part of the academic plan, residents are scheduled to rotate in other Departments, Neurology Training Programs and Neurology Centers in Latin America, United States and Europe. Rotations for 2004 and 2005:

- Dra. Aleyda Rivera, Alicante, with Prof. Giordi Matías Guiu
- Dr. Roberto Padilla: Alicante, with Prof. Giordi Matías Guiu and Instituto de Neurología y Neurocirugía "Manuel Velasco Suárez", Mexico
- Dr. Allan Alvarez: Instituto de la Nutrición, México (planned for 2006)

Presented By:
Professor Marco T Medina
Chairman, Neurology Training Program, National Autonomous University of Honduras; WFN NCC Task Force and the WFN Education Subcommittee of Spanish speaking countries

Assistant Professor Reyna Durón
Neurology Training Program National Autonomous University of Honduras

Disease Control Priorities Related to Mental, Neurological, Developmental and Substance Abuse Disorders

This WHO publication brings together five chapters from Disease Control Priorities in Developing Countries, 2nd edition (2006), along with an introduction and a conclusion by WHO. The chapters cover mental disorders, neurological disorders, learning and developmental disabilities, and alcohol and illicit opiate abuse.

Dr Donald Silberberg is senior adviser to the chapter on neurological disorders, which is comprehensive, covering dementia, epilepsy, Parkinson´s disease and stroke. For each region, it focuses upon cost-effectiveness of interventions in developing countries. It brings important data on the burden of disease and on recommendations, research and development.

The purpose of this special package is to provide information on cost-effectiveness of interventions for these specific groups of disorders. This information should contribute to reformulation of policies and programmes and reallocation of resources, eventually leading to reduction of morbidity and mortality.

The disorders and conditions covered in the five chapters of this volume are all characterized by low current levels of use of effective interventions. This underlines the need for substantial enhancement in resources, but also presents an opportunity in that the cost-effectiveness data can be used to focus enhanced resources to those interventions that are shown to give the best value for money. As mental, neurological, developmental and substance use disorders move up in the public health agenda of developing countries, the evidence presented in this publication can assist in resource allocation.

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Abstracts of some of the Papers Published in Journal of Neurological Sciences

Dengue infection: neurological manifestations and cerebrospinal fluid (CSF) analysis.

By Soares C.N., Faria L.C., Peralta J.M., de Freitas M.R.G., Puccioni-Sohler M.
249 (2006): 19-24.

Dengue fever is a mosquito-borne flaviviral disease endemic to the tropics. It most commonly causes a nonspecific febrile illness with considerable aching discomfort throughout. In some cases, a severe hemorrhagic form of the illness occurs, usually in children. In the past, dengue has not been considered as a neurological infection, but with the increase in the incidence of the disease, neurologists will be seeing more patients with its neurological manifestations. Furthermore, neuropathogenic strains of the virus may well arise. This is not unprecedented among the flaviviruses—in the past, West Nile fever was simply an undifferentiated febrile viral illness, but it is now known as a cause of a flaccid paralysis, encephalitis and myelitis. Dengue may do the same, and prominent neurological manifestations occur in 1-5% in various series.

In this paper, the neurologic manifestations in 13 adult patients in an epidemic of dengue fever in Brazil are presented. The main neurological syndromes were: encephalitis (7 patients), Guillain-Barre syndrome (4 patients) and myelitis (2 patients). Although dengue itself is self-limited, neurodengue may not be. Of 6 encephalitis patients who had followup, one died, one had motor deficits, and 4 had no sequelae. Of the 2 myelitis cases, one remained paraparetic and one had sphincter problems. The diagnosis of neurodengue is made clinically. Interestingly, the CSF IgM was negative in 2 out of the 7 encephalitis cases, and the diagnosis of dengue encephalitis followed from the coincidence of the neurological illness with acute dengue fever. Most of these patients had minimal or no pleocytosis. This suggests that PCR methods of detection of virus should be investigated, especially if the disease evolves into one with no systemic manifestations. Therapy is limited to supportive care. In one myelitis patient, corticosteroids and intravenous immunoglobulin had no effect.

Occurrence of nervous system involvement in SIRS.

By Marchiori P.E., Lino A.M.M., Hirata M.T.A., Carvalho N.B., Brotto M.W..I., Scaff M.
250 (2006): 147-152.

Neurologists are often called to see patients in the intensive care unit. Many of them have critical illnesses and develop a wide spectrum of neurological problems initially or after some time in the unit. These include alterations in mental status or weakness in the extremities. In many cases, the nature of the problem is obvious, eg excessive sedative medication or electrolyte imbalances (such as hyponatremia) causing drowsiness and confusion. In a small number of cases however, the nature of the problem is not so clear. All neurologists have been called to see critically ill patients who are weak or confused or having seizures, and it would be useful to know how common the various manifestations of "critical illness neurology" are.

In this paper, the authors catalog the neurological complications seen at the Sao Paulo University medical center in the years 1993-2003. There were 64 cases seen in consult, with 36 of them having central nervous system (CNS) problems and 28 neuromuscular problems. The main cause of SIRS in these patients was sepsis, with multiple trauma and burns following well behind. In all cases, common causes of these diseases were ruled out.

Encephalopathy was present in 75% of those with CNS problems, seizures in 14%, and strokes and nonepileptic myoclonus in a small proportion. The encephalopathic patients all had normal MRIs and CSF, and their EEGs showed no specific findings, and the encephalopathy lasted longer than any metabolic abnormalities, suggesting that SIRS itself affects consciousness directly.

Critical illness polyneuropathy was the most common neuromuscular complication in SIRS, affecting slightly more than half. A nonspecific myopathy was seen in about 20% of these patients, with appropriate EMG changes and nonspecific changes on muscle biopsy. Demyelinating polyneuropathy and necrotizing myopathy were seen in about 10 patients each. Interestingly, all of the myopathic patients had received high dose methylprednisolone, which has been a noted risk factor in other studies.

Although this was a retrospective study, and no outcome data are given (eg are encephalopathic patients more likely to have a negative outcome from SIRS than those not so?), the results are interesting and suggestive. A prospective study, with controls, and outcomes, would be the next step in elucidating the nature of this complicated and frequently lethal condition.

Increased risk of death in community-dwelling older people with white matter hyperintensities on MRI.

By Kerber K, Whitman G.T., Brown D.L., Baloh R.W.
Sci 250 (2006): 33-38.

It is not uncommon to find diffuse white matter abnormalities, some diffuse, some multifocal, in the MRI of elderly patients. These are often attributed to small vessel disease, and are thought to represent, in part, tissue rarefaction from chronic small vessel ischemia. While many such patients have vascular risk factors, not all do.

In this study, patients 75 years of age or older were recruited into a longitudinal study of dizziness and imbalance of no clear etiology. They were followed for up to 12 years, and risk and causes of mortality were ascertained. Baseline brain MRIs were scored for degree of white matter hyperintensities (WMH) and divided into three groups. Those with the highest degree of WMH had more gait imbalance, falls, and poor manual dexterity, and eventually the highest mortality, compared with those having mild to moderate WMH. It was interesting that most of the mortality in those with the highest degree of WMH was due to vascular disease (though not stroke), which was not the case for the other groups.

This suggests that WMH is a marker for generalized vascular disease, in the same way that diabetic and hypertensive retinopathy are, and that this can provide another surrogate outcome variable for studying the natural history of the disease and possibly provide an outcome variable for clinical trials. It would be interesting also to see if there are genetic correlates of this finding, *e.g.* apoE polymorphisms.

Alex Tselior, M.D., PhD

Young Neurologists in Training Group Meeting World Congress of Neurology 2005, Sydney

The World Congress of Neurology in Sydney (2005) was a great scientific and educational event. In particular, younger generation neurologists not only had an excellent opportunity to appreciate the highest level of lectures and presentations but were also able to meet peers from a large number of other countries. Additionally, the Young Neurologists in Training Group affiliated with the European Association of Young Neurologists and Trainees (YNT) and other regional organisations and societies, were able to hold a special platform session on 7th Nov, focusing on the similarities and differences in neurological education across the world. The meeting consisted of two parts. The first part comprised several presentations both from members of the educational committee of the World Federation and from various young neurologists, recently qualified or in training. The second half was devoted to an interactive discussion forum. After the welcome address by Dr. Konrad Rejdak (ex-president of the YNT and co-chair), Professor Theodore Munsat presented the main activities of the WFN Education Committee and educational programs successfully implemented in countries lacking efficient neurological services and training systems.

Participants in the Discussion Forum during the Neurology Trainees' Session at WCN.

Next, Professor Wolfgang Griesold as chair of EFNS Education Committee, summarised the recent progress in the evaluation of the neurological curriculum, which could potentially form the basis for a more uniform and perhaps integrated future training program within the European countries. Continuing on this very important issue on neurology training across the world, an international survey administered via questionnaire, presented by Dr Konrad Rejdak (EFNS Education Committee) revealed quite significant discrepancies between countries regarding curriculum content and structure. In some countries, there were even significant disparities in practices and standards of neurological teaching centers within the same region. Further, it was clear that there was quite a wide range of responses on satisfaction estimates in that survey from representatives of different countries. Accordingly, discussion centred around the need to address such a situation and how trainees might be able to access other educational resources that would not otherwise have been available to them. An example of how this was being dealt with at an international level were the efforts of Professor Munsat's team in reviewing the curriculum in (Honduras) under the auspices of the Federation.

Dr Axel Petzold (London, UK) gave a report on the YNT-Schering Fellowship in Multiple Sclerosis as an option for clinical training abroad. The YNT-Schering Fellowship has been running successfully since it was introduced at the last World Congress of Neurology in London in 2001. So far we were able to support candidates from Russia, the Czech Republic, Ukraine, Brazil and Argentina to develop their clinical skills in a European centre of excellence. This was followed by Professor Hubert Kwiecinski, who was instrumental in the development of a new training programme in Poland, which has been recently introduced in order to make it more compatible with other EU countries. The last speaker Professor Marco Medina presented the results of the project implementing the aforementioned WFN educational programme in Honduras. This is indeed the best example of how the WFN can successfully realise its educational aims and it was interesting for many present to realise the broader remit of the Federation in supporting and facilitating training in developing regions.

The second part of the meeting was chaired by Dr Karl Ng (Consultant neurologist and clinical neurophysiologist from Australia) and was organised as a free discussion forum following the final presentations. Key figures from various training programs across the globe contributed their opinions on important issues and shortcomings in that area of professional activity. It was attended by honorary guests from various national and international organisations including Professor Franz Gerstenbrand (EFNS, Danube Symposium), Professor Leontino Battistin (ESCN, Italian Neurological Society), Professor John Morris (Chair, Education and Training Committee, Australian Association of Neurologists), Dr Antonio Gil-Nagel (Spanish Neurological Society), Professor Grzegorz Opala (Polish Neurological Society) and others. Special reference was made to the hitherto contentious issue of an early special neurosciences streaming pathway for clinicians destined for neurology, neurosurgery and related disciplines such as that proposed in the United Kingdom. Implications for a broad general grounding in internal medicine were discussed. In addition, the use of modern teleconferencing technologies and information

dissemination for trainees in Australia was given as an example of a more integrated approach to the curriculum at a national level. This discussion forum was opened by the presentations by Dr. Walter Struhal (YNT treasurer) giving an up-date on the current activities of YNT. The YNT was presented in general, followed by a short review of activities. In addition an insight was given into the website and the OFTEN program. Dr. Femke Bouwman, as a representative of the European Board of Neurology gave the report of recent activities of this organisation. Finally, Dr. Albrecht Guenther (ex-treasurer of the YNT and YNT delegate to the WCN Education Committee) summarised the recent grant opportunities available for young neurologists interested in training abroad.

This meeting was also pleasing for junior members of the fraternity to have the opportunity to meet other trainees from Australia and beyond in an informal setting in a specially organised session by the Australian Association of Neurologists. We not only saw our own respective organisations in a broader context but made new friendships. These also held the promise of future administrative and professional collaboration. We would like to express our sincere thanks to the WCN Organising Committee, in particular, Professor William Carroll and Professor Samuel Berkovic of the local WCN Management Committee, as well as Professor Theodore Munsat for supporting our group and making it possible to organise this successful session. All members present were grateful that this was felt to be a sufficiently important aspect of the activities of the WFN to warrant its inclusion in the program and welcome a similar session in future meetings.

Konrad Rejdak,
Department of Neurology,
Medical University of Lublin, Poland.

Parkinson's News Update

Parkinson's Disease Process May be Curtailed by Regenerative Processes in Yeast, Fruit Flies

Yeast might not be the most obvious experimental model for neurodegenerative diseases. For one thing, yeast cells don't have brains.

But these single-celled creatures get sick and die from the same toxic culprit that mucks up dopamine- producing neurons in Parkinson's disease. Now, a multi-institutional team led by Susan Lindquist, MIT biology professor and Whitehead Institute member, has found a way to reverse the damage in yeast. Even better, the team confirmed the same defect and cure in dopamine-producing neurons of fruit flies, roundworms and rats.

The findings reveal how simple yeast may speed up the search for new therapeutics for complex brain diseases that are hard to study in people. "We put a human gene into an organism that separated from us in evolution one billion years ago, and we found the same biochemical activity," says Lindquist, who is also a Howard Hughes Medical Institute investigator. "This is a new way to understand the biology and a potential mechanism for discovering drugs."

Parkinson's and gambling: Is it the drugs or the disease? / Newer treatments for the movement disorder may be associated with compulsive behaviour

Doctors and researchers are puzzling over why certain people taking medication for Parkinson's disease become compulsive gamblers, binge eaters or sex addicts.

Parkinson's disease causes shaking and difficulty with walking, movement and coordination. It involves a shortage of the chemical messenger dopamine in the brain. Newer medications called dopamine agonists help activate brain receptors for this chemical.

Jeanne Rosner, director of the Parkinson's Information Service in Chicago, says her organization's hotline has received numerous calls from patients and caregivers reporting excessive gambling and sexuality among patients with Parkinson's disease, many of whom exhibited those behaviours after taking dopamine agonists.

Protein 'wires' common in Parkinson's disease now shown in the lab

The misfolding of proteins in brain cells, commonly seen in Parkinson's Disease, can be imitated in a laboratory setting very well, on a nanoscale. The fibrils, tiny "wires", formed by proteins present in healthy brain cells, are thus shown to be different from the mutant proteins, only seen in patients suffering from an hereditary form of Parkinson. Scientists Martijn van Raaij, Ine Segers-Nolten and Vinod Subramaniam of the University of Twente show these clear differences in their publication in Biophysical Journal of this week. Comparable fibrils could play a role in other neurodegenerative diseases like Alzheimer and Creutzfeld Jakob.

The actual cause of Parkinson's disease is, almost two hundred years after the first publication of the British doctor after whom the disease is named, still unknown. Apart from clinical research among patients, research on a cellular and molecular level is performed. It has already been established that clustering or misfolding of proteins in brain cells plays a crucial role.

Martijn van Raaij, who is a PhD-student within the Biophysical Engineering group of Prof Vinod Subramaniam, has looked at this clustering process using an Atomic Force Microscope: a microscope that scans a surface with a tiny needle and is able to visualize individual protein fibrils.

Protecting Neurons from Parkinson's/New insights into the diseases' protein culprit

MIT researchers led by Susan Lindquist, a biology professor and member of the Whitehead Institute for Biomedical Research, have developed a way to protect neurons from degeneration and death in animal studies of Parkinson's disease. The research, which focused on a protein called alpha-synuclein, could lead to therapies for human Parkinson's.

The disease's characteristic tremors and muscle rigidity are caused by damage to and the death of neurons that use the neurotransmitter dopamine to communicate with neighboring neurons. Alpha-synuclein was known to be one of the main causes of that damage; large clumps of it, in a misfolded form, are found in the brains of Parkinson's patients. But researchers did not know what alpha-synuclein's normal role is, why Parkinson's neurons accumulate too much of it, or how it causes disease. Lindquist's team used a yeast model of Parkinson's to study these questions.

Variants in three estrogen-related genes linked to Parkinson's disease in women

Researchers at Mayo Clinic have discovered a possible connection between increased risk for Parkinson's disease and variants in three genes that control estrogen production and activity in the body.

"We and other investigators have found evidence that estrogen helps protect women from developing Parkinson's," says Walter Rocca, at Mayo Clinic and lead study investigator. "So, a gene variant that would decrease estrogen production or activity would put those women at greater risk for the disease."

Oxford Biomedica presents encouraging data for Parkinson's treatment

Oxford Biomedica has made available preclinical efficacy data, which suggests that a gene-based product could have significant efficacy for those suffering from Parkinson's disease when compared to current treatment methods.

Parkinson's disease is a progressive neurodegenerative disease of the basal ganglia region of the brain, with tremor, rigidity and difficulty initiating movement being the most common symptoms.

The condition is associated with a deficiency of the chemical dopamine in the brain. The appropriate cell therapy treatment of patients suffering from Parkinson's disease is the introduction of purified dopamine-producing neurons into the patient's brain.

Parkinson's Gene Reveals Its Secrets

Scientists say they've discovered how a gene mutation linked to an inherited form of Parkinson's disease damages the brain. The LRRK2 gene produces malfunctioning proteins that stunt the normal growth and branching of dopamine-producing neurons, which eventually causes them to die, concludes the Columbia University study.

The finding could lead to animal models that could be used to study this form of Parkinson's in an effort to develop new treatments for the disease.

WFN Continuum Study Group Programme: Comments from Participants

Critical Care Neurology

The course provided me with new and high-quality knowledge. In fact Dr. Ahmad Khalifa did great effort, his organization was professional and without him we cannot keep in touch with the newest neurology information.

Dr. Talal Al Asswad
Department of Neurology, National Homs Hospital, Dar Assalam

It was a very interesting course and full of informations for me as a specialist and for even intern and post graduate Doctors

Dr. Azzam Bazbouz
Department of Neurology, National Hospital of Hama, Hama, Syria

It was very interesting course

Dr Khaled Katramiz
Department of Neurology
Tishrin Hospital, Hama-Alkosar, Syria

BOOK REVIEW

Clinical Neuroanatomy and Neuroscience

Fifth Edition.

Editors:	M.J. Turlough Fitzgerald, Gregory Gruener and Estomih Mtui
ISBN:	13 978-0-8089-2373-3
No. of Pages:	428
Price:	GBP 32.99
Publication Date:	2007
Publishers:	Elsevier Saunders

This is the latest edition of a unique book which describes the structure immediately followed by function for everyday clinical application. Both the basic reader and those who practice clinical neuroscience can get the benefit from this book which presents clinical information in distinctive blue panels to help theory into practice. Quick and convenient information needed for sensory, motor or cognitive functions has been made easy in this edition. Five new chapters have been added to explain the principles underlying electrophysiological diagnosis of numerous disorders of central and peripheral nervous system along with molecular biology of transmitters and receptors. The book is divided into 35 chapters covering all regions of the nervous system including EEG, evoked potentials and cerebrovascular disease. Readers of basic Departments of Anatomy, Physiology, Medical students and clinical neurologists will appreciate it most. It is a must in the catalogue of the library of Medical Institutions.

Editor-in Chief

CALENDAR

2007

9th Asian & Oceanian Congress of Child Neurology
January 24 - 27, 2007
Cebu, Philippines
http://aoccn2007.org/

5th International Congress on the Improvement of the Quality of Life on Dementia, Parkinson's disease, Epilepsy, MS and Muscular Disorders
January 25 - 30, 2007
Catania, Sicily, Italy
http://www.forumcongress.com/qol/

2nd World Congress of the World Association of Sleep Medicine
February 04 - 08, 2007
Bangkok, Thailand
http://www.wasm2007.info/

International Stroke Conference 2007
February 07 - 09, 2007
San Francisco, CA, USA
http://strokeconference.american-heart.org/portal/.../sc/

3rd Annual Update Symposium on Clinical Neurology and Neurophysiology
February 19 - 21, 2007
Tel Aviv, Israel
http://www.neurophysiology-symposium.com/

1st East Mediterranean Epilepsy Congress
February 21 - 24, 2007
Luxor, Egypt
http://www.epilepsyluxor2007.org/

The Annual Global Conference on Neuroprotection and Neuroregeneration
March 04 - 07, 2007
Garmish-Partenkirchen, Germany
http://www.gcnpnr.org/2007/gcnn2007.html

Carotid Disease and Stroke
March 08 - 10, 2007
Stockholm, Sweden
http://www.congrex.se/vascular2007/index2.html

2nd World Congress on Gender-Specific Medicine and Aging
March 08 - 11, 2007
Rome, Italy
http://www.gendermedicine.com/

Linking Affect to Action: Critical Contributions of the Orbitofrontal Cortex
March 11 - 14, 2007
New York, NY, USA
http://www.nyas.org/OFCconf

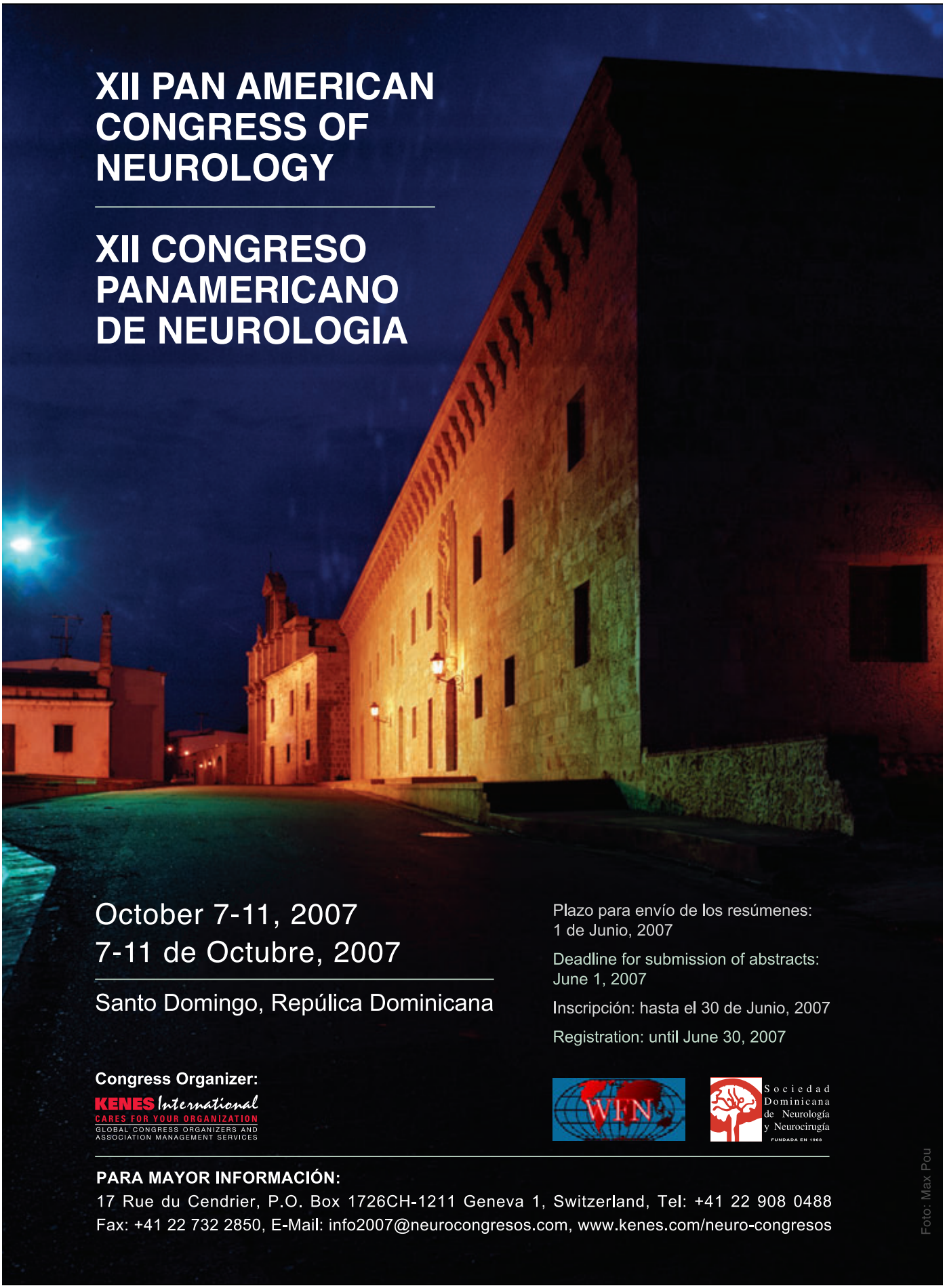
8th International Conference AD/PD 2007
March 14 - 18, 2007
Salzburg, Austria
http://www.kenes.com/adpd/

4th European Neuroendocrine Tumor Society (ENETS) Conference
March 15 - 17, 2007
Barcelona, Spain
http://www.neuroendocrine.net/rel/index.php4

2nd Congress of Molecular Medicine
March 24 - 26, 2007
Istanbul, Turkey
http://www.molekulertip.org/kongre/index.php

First International Congress on Epilepsy, Mind & Brain
March 29 - 31, 2007
Prague, Czech Republic
http://www.kenes.com/epilepsy/

59th Annual Meeting of the American Academy of Neurology
April 28 - May 05, 2007
Boston, MA, USA
http://www.aan.com


XII PAN AMERICAN CONGRESS OF NEUROLOGY
XII CONGRESO PANAMERICANO DE NEUROLOGIA
October 7-11, 2007
7-11 de Octubre, 2007
Santo Domingo, Repúlica Dominicana
Plazo para envío de los resúmenes: 1 de Junio, 2007
Deadline for submission of abstracts: June 1, 2007
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Registration: until June 30, 2007
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