A *MOVEMENT* DISORDER SOCIETY UPDATE

Moving Along

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inside this issue

Editorial

This June issue of *Moving Along* seeks to provide the members of The *Movement* Disorder Society (MDS) with some interesting summer reading to keep you in touch with the exciting advances in our field. As stated in our President's message, the MDS is sponsoring a wide array of initiatives in order to promote the education of these disorders. Efforts include joint American Academy of Neurology (AAN/MDS Dystonia Workshops in 2003); an MDS Visiting Professorships Program; an MDS-European Society (ES) sponsored symposia and teaching course on Movement Disorders during the 2002 European Federation of Neurological Societies (EFNS) Congress in Vienna, Austria; and the MDS-ES development of a CD-ROM on muscle targeting for botulinum toxin injection.


Irene Litvan, MD


Thomas Gasser, MD

As in previous issues of this newsletter, we are striving to bring to your attention some of the scientific, social and professional issues currently debated within the Movement Disorders community. For example, a major topic considered at the recent meeting of the AAN in Denver, Colorado, USA this past April was the presentation of two studies indicating that the use of dopamine agonists may actually slow down the progression of Parkinson's disease, when compared to a treatment using Levodopa. As the question of clinically relevant neuroprotection is one of the most pressing in PD research, these studies are discussed in this issues' "Scientific Statement" section. Despite the excitement surrounding these promising results, we are all aware that we are far from truly preventing the inexorable progression of PD, and therefore, in this issue, the pressing question being discussed in our "Controversy" section, *Should DBS for the treatment of Parkinson's disease be restricted to late disease stages, as it is our current practice, or should this procedure be offered also, or maybe even preferably, early in the course of the disease, in order to provide a maximum benefit to the patient*? Drs. Marwan I. Hariz and Andres M. Lozano take the position that given the relatively low risk of DBS surgery, and the clear benefit in patients with advanced disease, there is good reason to provide this opportunity to patients in early disease stages, following a very general rule

QUESTIONS

1. When do you think deep brain stimulation should be used in PD?

☐ **Early stages** ☐ **Late stages**

2. Did your opinion on the timing of deep brain stimulation change after reading the current June issue of *Moving Along* 's controversy article?

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Over the years The *Movement* Disorder Society (MDS) has established itself as the premier subspecialty organization in the field of Parkinson's disease and other Movement Disorders.

Our unique journal "*Movement* Disorders" – now rating among the top 20% of clinical neurology journals – is one of the strong pillars supporting the success of the MDS. Last year *Movement* Disorders went electronic and by now all of you should have received the first complete DVD version of the full content for the year 2001 – containing both articles and videos. Next year we will see our journal moving to a monthly publication schedule in response to the ever increasing numbers of high-quality submissions. The two joint Chief Editors responsible for this success story, Drs. Andrew Lees and Anthony Lang, will hand over their positions at the end of 2003. An Editorial Search Committee, chaired by Dr. Mark Hallett, has been busy coordinating the search for the new Chief Editors, who will be announced in Fall 2002, and officially assume their important new roles on January 1, 2004.

The second major strength, of course, of our society is the highly successful biennial International Congress of Parkinson's Disease and Movement Disorders. I am very pleased to assure all of our members that the Society's 7th International Congress of Parkinson's Disease and Movement Disorders held in Miami from November 10 – 14 this year is well under way towards another major success. So far we have received more than 1,200 abstract submissions and the organizing committee has put together an outstanding scientific program.

I am also very pleased to announce that by July of this year the MDS membership has again grown and is now 1,532 active members strong from all over the world.

The provision of education and dissemination of information related to movement disorders is part of the MDS mission. During their meeting in December 2001, the MDS Officers determined to construct a stronger educational arm within the existing infrastructure of The Society and to increase its efforts particularly through expansion of The Society's educational purview to include workshops and courses, educational CD-ROMs, and Web-based educational programs. To this end, MDS revitalized its Education Committee under its newly appointed Chair, Cynthia Comella, MD. And, in 2002, a Director of Education will be added to the Secretariat staff in Milwaukee to assist the committee.

In addition to the planning currently underway for the development of new educational initiatives and supplementary materials, the MDS moves forward in a number of key areas, including:

· A joint 2002-2003 AAN/MDS collaboration to offer regional programming in the United States on the treatment of dystonia and spasticity. Information regarding these programs may be obtained from the MDS (www.movementdisorders.org) and AAN (www.aan.com) Web sites, or by

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Editorial

in surgery, "the earlier, the better". On the other hand, Dr. Fredrick A. Lenz argues that the risk of complications is not to be neglected and that convincing data for a symptomatic or protective role of DBS in early disease stages are presently lacking. As a consequence, he encourages the design of controlled trials to address this question. Given the enormous impact that our answer, as an opinion-leading group, to this question will have for patients, physicians and, last but not least, health care providers, a thorough discussion on the scientific, medical, and social level, as initiated by this controversy, will be crucial.

This issue will also bring you up to date on a major European networking effort to advance the research and treatment of multiple system atrophy (MSA), the European MSA-Study group. It is particularly gratifying that this newly established group already works closely with its American counterpart, emphasizing close and friendly connections throughout the Movement Disorders world.

Information on upcoming and past meetings, job opportunities and the activities of the MDS European Section will complement this issue and will make it a good addition to any summer vacation luggage. In fact, *Moving Along* wants to keep you moving along with your summer activities! With that in mind, our newsletter, printed on high-grade, moisture-resistant paper, can be taken to the pool or beach without having to worry about spilling, all the while staying up to date on the latest movement disorders news. Have an enjoyable summer! ●

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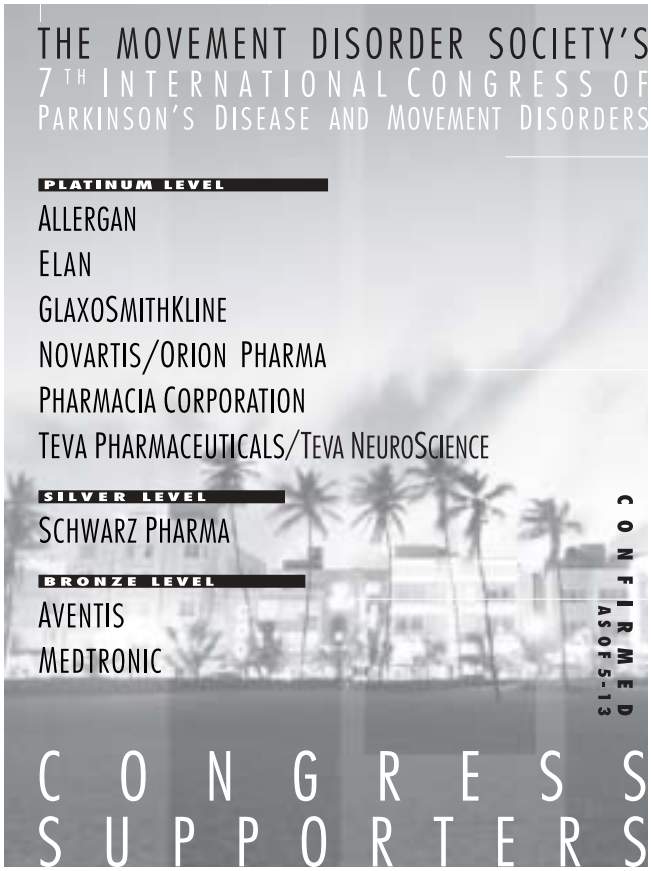
President's Letter

contacting the MDS Secretariat at info@movementdisorders.org.

- The MDS Visiting Professorships Program, which will provide educational opportunities to healthcare professionals in Developing Countries, as this relates to the treatment and care of individuals with movement disorders.
- MDS-ES sponsored Symposia and teaching course on Movement Disorders during the 2002 EFNS Congress, October 26-29, 2002, in Vienna, Austria. In addition, MDS-ES is also continuing its development of a CD-ROM for dissemination of information on muscle targeting for botulinum toxin injection. Moreover, in conjunction with the MDS Education Committee, planning will soon be underway to offer a series of workshops in Europe on the use of botulinum toxin.
- The Evidence-based Medicine Review Task Force on PD Treatments directed by Dr. Werner Poewe, and the members



of the writing group comprised of Drs. Christopher Goetz, William Koller, Werner Poewe, Olivier Rascol and Cristina Sampaio, have completed an evidence-based medicine review of treatments for Parkinson's disease. The full text of this report will be made available to the MDS membership as a supplement to the July/August issue of the *Movement* Disorders journal. A brief summary of the report was published in the *Lancet* this past May. Issues of evidence-based medicine continue to be an important field for the MDS.

The joint MDS and Cochrane Group collaboration task force on evidence-based medicine, chaired by Dr. Cristina Sampaio, will update the document in subsequent years and is currently active in preparing an educational program based on the report. Dr. Sampaio and Dr. Cynthia Comella, Education Committee Chair, are collaborating to bring this exciting educational programming to the membership in 2003.

The MDS Nominating Committee has finalized its work and the preliminary slate of nominations for the Officers and International Executive Committee (IEC) positions will be mailed to the membership in July 2002.

Please continue to reference the MDS journal, *Movement* Disorders, The Society's Web site at www.movement disorders.org, and this newsletter for exciting updates regarding current and future educational programs and related activities. ●

Early vs. Late Surgery In Parkinson's Disease

The Case for Early Surgery in Parkinson´s Disease

— Marwan I. Hariz, Professor of Functional Neurosurgery, Department of Clinical Neuroscience, University Hospital of Northern Sweden, Umeå, Sweden

— Andres M. Lozano, Professor of Surgery, RR Tasker Chair in Functional Neurosurgery, Division of Neurosurgery, Toronto Western Hospital and University of Toronto, Ontario, Canada

Surgery for Parkinson´s disease (PD) is increasingly used and published. Furthermore, neurologists are today much more involved than in the past in selection of patients for surgery, in intra-operative assessment, in postoperative follow-up as well as in documentation of outcome and publication of results. On the other hand, treatment algorithms for PD, published by movement disorders specialists in books and papers, still list the alternative of surgical treatment at the very end of the algorithm. They mention the possibility of surgery after every available medical treatment and every conceivable combination of dopaminergic drugs have been tried for a "sufficient" period of time. Hence, surgery for PD, as currently used, remains the very last therapeutic resource, when everything else has failed.

In view of the excellent results of modern surgical trials and their low risk of complication and side-effects, especially when non-ablative deep brain stimulation (DBS) procedures are used (1, 2), one may wonder whether surgery should be used earlier in the course of the illness. In fact, there starts to be a shift of attitude among some groups involved in surgery for PD towards earlier surgery: certain authors (2) suggest that "there was also a tendency for patients with a longer disease duration to be less improved by surgery, suggesting that subthalmic nucleus (STN) stimulation might be envisaged at an earlier stage of the disease." They concluded, "Our results confirm the efficacy of continuous bilateral high frequency stimulation of the STN in a levodopa-responsive form of PD and suggest that age, long disease duration and residual axial motor symptoms that have a low level of responsiveness to levodopa treatment...are factors contributing to an unfavorable motor outcome of neurosurgery." The same experience has recently been reported from the group in Grenoble, who advocate not only surgery on younger patients, but also surgery earlier in the course of the disease. These statements related to STN DBS are not new, however. Lauri Laitinen, the pioneer of modern pallidotomy, has stated many times concerning timing of pallidotomy in PD, "The sooner, the better."

Why is early surgery preferred in PD rather than surgery when the patient has reached the end-stages of disease and has become unmanageable by solely medical means? One obvious reason relates to virtually all neurosurgical procedures: The sooner they are performed, the better are the results. This is true for emergency, "life-saving" surgery such as removal of intracranial masses (tumors, hematoma, hydrocephalus, etc.). It is even truer for the inactivation of functionally pathological brain areas that adversely affect the non-diseased brain areas such as epileptic foci or pathologically hyperactive brain circuitry such as encountered in PD. There are other aspects essential to consider in a chronic, progressive, so far incurable disease such as PD: the effects and consequences of the disease and its symptoms on the ability and well-being of the patient as well as on the patient's life quality, familial and social life and aspirations.

Why early surgery?

Modern surgery (pallidotomy, DBS) provides symptomatic treatment and diminishes adverse effects of medical treatment. It reduces the probability or delays the development of drug-related adverse motor effects. Early surgery prevents the "loss of opportunity" associated with the disability that persists despite medical treatment. This disability may lead to subtle changes in the patient's drive, ambitions and expectations and may lead to social withdrawal, early retirement, under-employment or unemployment. There has also been some suggestion that surgery may slow down the progress of disease. While this remains to be seen, such a development would provide a strong argument for early surgery.

Safety is an issue when advising a patient to undergo surgery. As surgery becomes safer and safer, the timing of surgery will probably move earlier and earlier in the course of PD. In the literature, there still are no conclusive data to definitely support neurosurgical interventions on mildly affected patients with PD, because most of the operated patients have been in advanced stages of the disease, with motor fluctuations, dyskinesias, or decreased response to medical treatment. However, as shown above, there is a definite trend toward earlier surgery because it appears that results in those patients who have surgery at an earlier stage are simply better than in those with advanced disease (2).

It may be argued that not all PD patients will develop motor fluctuations and that many patients have a benign, relatively

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Early vs. Late Surgery In Parkinson's Disease

The Data Are Not Sufficient to Justify the Extension of Neurosurgical Interventions to Mildly Affected Patients with Parkinson's Disease

— F.A. Lenz MD, PhD, FRCS(C), Department of Neurosurgery, Johns Hopkins Hospital, Baltimore, MD, USA

The basic criteria for surgical therapies for movement disorders are that the movement disorder is disabling and that the procedure should be significantly more effective than best medical therapy. Pallidotomy was the most common surgery in the early modern era of surgery for Parkinson's disease (PD). It was found to be effective for the treatment of drug-related dyskinesias and fluctuations, symptoms of advanced disease (Baron, Vitek, et al. 1996 2521 /id), (Lang, Lozano, et al. 1998 3038 /id). More recently, stimulation of the subthalamic nucleus (STN-DBS) was found to improve motor function in patients with advanced PD in both the 'on' and the 'off' state (Limousin, Krack, et al. 1998 3031 /id), (Kumar, Lozano, et al. 1998 3039 /id). However, there is no evidence that surgery is effective in the treatment of symptoms in mildly affected patients with PD.

Another suggested criterion for early implantation of STN-DBS in PD patients is for neuroprotection – to slow the progression of PD (Rodriquez, Obeso, et al. 1998 3349 /id). The output of subthalamic nucleus (STN) to the Substantia Nigra pars compacta (SNpc) is mediated through excitatory amino acid neurotransmitters (EAA) acting at N-methyl-d-asparate receptors in the rat. Therefore, the increased output of STN in PD (DeLong 1990 1115 /id) might lead to increased cell death in the SNpc, which would accelerate PD (Rodriquez, Obeso, et al. 1998 3349 /id). Indeed, destruction of the STN ameliorated behavioral and histologic markers of parkinsonism in the rat 6-hydroxydopamine (6-OHDA) model of PD (Piallat, Benazzouz, et al. 1996 3370 /id). However, there is no evidence that STN-DBS slows the rate of SNpc cell loss or clinical progression in PD or primate models of PD.

There are other theoretical reasons to think that STN-DBS is neuroprotective. STN decreases the requirement for levodopa, which could slow the course of PD since levodopa may be neurotoxic. In tissue culture, levodopa is neurotoxic, probably due to reactive oxygen radicals and hydrogen peroxide generated by the auto oxidation of levodopa and dopamine (Agid 1998 3378 /id). In the 6-OHDA rat model of PD, high dose administration of levodopa may (Blunt, Jenner, et al. 1993 3375 /id) or may not (Dziewczapolski, Murer, et al. 1997 3377 /id) cause a modest decrease in cell counts in the SNpc. CNS pathology at autopsy in cases of patients with PD treated with levodopa was not so different from cases not treated (Yahr, Wolf, et al. 1972 3379 /id). Patients with a misdiagnosis of PD and treated with doses of levodopa typical of those used in PD showed no evidence of cell loss in SNpc at autopsy (Quinn, Parkes, et al. 1986 3374 /id), (Rajput, Fenton, et al. 1997 3376 /id). Thus, there is only weak evidence that levodopa is toxic in rodent models of PD or that STN-DBS in early PD might confer a neuroprotective effect by minimizing levodopa doses.

It has also been proposed that drug-related fluctuations and dyskinesias are a manifestation of levodopa toxicity (Weiner 1999 3368 /id) (Weiner 1999 3368 /id) which could be avoided by the early administration of dopamine agonists rather than levodopa itself. Use of these agents could delay use of levodopa and decrease levodopa toxicity without the risk of surgery. A study comparing levodopa with ropinirole (Requip) demonstrated that ropinirole delayed the development of dyskinesias (Rascol, Brooks, et al. 2000 3726 /id). Motor scores on ropinirole were comparable to those on levodopa and ropinirole was well tolerated. PD patients with dyskinesias treated with STN-DBS and a lower dose of levodopa have been anecdotally reported to have no dyskinesias when STN-DBS was briefly stopped and levodopa reinstituted (Agid 1998 3378 /id). This isolated observation may suggest that dyskinesias are due to levodopa toxicity. Even if levodopa does accelerate the development of drug-related complications ropinirole is a demonstrated medical alternative to levodopa while support for STN-DBS as an alternative is anecdotal, at best.

Thus there is no convincing evidence that STN-DBS is effective in mildly affected patients with PD as a symptomatic treatment or as a neuroprotective agent. Even if there were a rationale for STN-DBS for these indications, this modality of therapy would have to be compared with medical therapy in a controlled trial because of the risks of STN-DBS. In the current literature of STN-DBS, a total of 35 patients have been implanted bilaterally and followed for one year. In this small population, there has been a bleed leading to hemiparesis and aphasia (3%), a venous infart and a thalamic lesion leading to dysarthria and a reduction in verbal memory (7%), cognitive or personality changes (7%) and equipment failures or infection requiring removal of the system (7%), and transient change in mental status (33%); (Kumar, Lozano, et al. 1998 3039 /id), (Burchiel, Anderson, et al. 1999 3365 /id). The true burden of maintenance of these devices in mildly affected

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The Case for Early Surgery in Parkinson´s Disease

stable disease with very low progression rate, which makes a surgical procedure with inherent risks unnecessary. This is certainly true, and we do not yet have markers that predict who will remain stable and continue to respond well to medication, and who is destined to have major problems with response fluctuations. We also do not know which patient with response fluctuations will be relatively easy to treat medically and which patient will experience pronounced disability. Finally, we still do not know who will develop significant problems with drug-resistant symptoms, and these patients are, for the time being, poor candidates for surgery.

It may also be argued that there are no real long-term data on the robustness of the results over time in operated PD patients. This may be so far true for STN DBS procedures, but not for pallidotomy; this procedure has shown in the few long-term studies published so far, a robust effect at least on dyskinesias (3, 4). Furthermore, what time span can be considered as the "end point" in assessing the results of a functional neurosurgical procedure for a chronic progressive disease like PD? One year? Five years? Ten years? If the surgery contributes to a relief of some symptoms, and permits an even better medical management of the patients' PD in the longer term, leading to a maintenance of their abilities and quality of life at a satisfactory level for several years, would it not be worthwhile and justified?

Taking into account the above, and while waiting for the development of markers that indicate early which patients will become medically refractory and will eventually need surgery, one has to consider important aspects such as work opportunity, familial and social life and other aspects of quality of life in selection of patients for surgery. In our opinion, early surgery should be offered to patients with PD who have shown a good response to dopaminergic treatment, when these patients show a progression of disease necessitating frequent adjustment of drug doses and in whom the disease is threatening to impact on the patient´s working and social abilities. In these cases, a judicious assessment and a carefully conducted surgery will have great chances to reverse or at least slow down the negative trend of the disease, and to allow the patient to remain in work and socially active. Above all, early surgery may prevent the patient from losing opportunities in professional and social life that will be very difficult to restore later on, even when surgery at a later stage is successful, because once a chronically sick person is excluded for reasons of health from the community, a point of no return may be reached and it will be very difficult for this person to come back on the stage. Since surgery for PD is not about "saving life" of the patient, but about allowing patients to lead life to the fullest, it is logical to propose surgery once the signs and symptoms of the illness are incompatible with the patient's goals and aspirations.

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patients with PD can be estimated from two large series of DBS for chronic pain (Hosobuchi 1986 1565 /id), (Levy, Lamb, et al. 1987 1546 /id), in which a total of 263 patients were followed over 10 years. In these series there were ten intracerebral hemorrhages (4%), (including three deaths), 23 infections (9%), ten hardware erosions (4%), and seven foreign body reactions (3%). Thus, the significant morbidity of this technique mandates that controlled trials be carried out against best medical therapy before recommending surgery for the treatment of mildly affected patients with PD.

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MDS Lectureship Awards to be Presented in Miami

— William C. Koller, MD, PhD, Chair, International Congress Organizing Committee

On behalf of The *Movement* Disorder Society (MDS), I am pleased to announce the 2002 award recipients for the Stanley Fahn and C. David Marsden Memorial Lectureship Awards, who will be honored in Miami during the 7th International Congress of Parkinson's Disease and Movement Disorders.

On Monday, November 11, The Stanley Fahn Lectureship award will be presented to David J. Brooks, MD, DSc, FRCP, for his outstanding work in Parkinson's disease imaging. Following acceptance, Professor Brooks will present his latest research findings on, *Parkinson's disease: New insights from functional imaging.*

Currently, David Brooks serves as Hartnett Professor of Neurology and Honorary Consultant in the Faculty of Medicine, Imperial College, Hammersmith Hospital, London. In addition, Professor Brooks serves as visiting Professor for the University of Innsbruck, Austria and Chief Medical Officer for Imanet, Amersham PLC and Clinical Director for Imaging Research Solutions, Ltd, Hammersmith Hospital, London. Professor Brooks has been recognized for his excellence in PET imaging research globally and continues to gain acknowledgement through neurological societies and his published works.

The C. David Marsden Lectureship Award will be presented to Yoshikuni Mizuno, MD, on Tuesday, November 12, in recognition of his research achievements in Parkin and Parkinson's disease. Professor Mizuno will follow with a lecture on, *Impact of inherited Parkinson's disease on the understanding of nigral neurodegeneration.*

Yoshikuni Mizuno currently serves as Professor and Chairman of the Department of Neurology at Juntendo University School of Medicine in Tokyo, Japan. He is an active member of numerous international neurological societies and also serves as an editorial board member for several international journals. Professor Mizuno's research interests include the etiology and pathogenesis of Parkinson's disease. Recently, Professor Mizuno and his collaborators identified the disease gene for an autosomal recessive form of young onset familial Parkinson's disease, and named the gene "*parkin.*" This is the second form of familial Parkinson's disease in which the disease gene was identified.

Congress delegates are invited to attend the 30-minute memorial lectureships on November 11 and 12 in Miami to become informed about the latest original research developments of these prestigious leaders in the field of movement disorders.

The MDS memorial lectureship awards recognize outstanding clinicians or researchers working in an area of movement disorders related to the research and development done by The Society's founders, Professors Stanley Fahn and C. David Marsden. ●

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Neuroprotection by Dopamine Agonist Treatment?

— Thomas Gasser, MD, Movement Disorders Unit and Neurogenetics Laboratory, Ludwig-Maximilians-Universität, München, Germany

Currently available drugs for Parkinson's disease (PD) successfully treat the motor symptoms of the disease for several years and have brought considerable improvement to the quality of life of innumerable patients. However, in later stages of the disease, this treatment meets only with limited success, due to motor complications such as end-of-dose and peak-dose dyskinesias and drug-induced psychosis. It therefore remains a major goal of PD research to develop treatments that not only ameliorate the symptoms of the disease, but also slow (or even halt) the progression of neurodegeneration.

Over the past few years, several large and well designed studies have convincingly demonstrated that early treatment with dopamine agonists significantly reduces the occurrence of late motor complications [1,2]. Dopamine agonists therapy has therefore become a prime treatment strategy in early PD, at least in younger patients [3]. Whether this favorable influence on the course of the disease reflects a true slowing of disease progression, or rather a modification of postsynaptic signalling mechanisms remains unclear.

At this year's meeting of the American Academy of Neurology (AAN), two important studies were presented which add important new information to this ongoing discussion (American Academy of Neurology, Annual Meeting 2002, S11.003 and S11.006). Both studies report the results of double-blind trials comparing dopamine agonists (pramipexole and ropinirole, respectively) with L-Dopa in the treatment of early PD. Both use not only clinical measures, but imaging of presynaptic dopaminergic neurons by ß-CIT-SPECT and 18F-Dopa-PET.

In addition, both studies for the first time are able to show that the progression of the abnormalities found in these imaging studies is slower in the group treated with dopamine agonists when compared to the L-Dopa group.

Does this prove that dopamine agonists are neuroprotective in PD? Several problems remain to be addressed before this question can be answered with confidence. Are the changes demonstrated by SPECT or PET truly reflecting the degenerative process, or are compensatory or pharmacologic mechanisms obscuring the true picture? Are dopamine agonists truly "protective," or are they just less toxic to dopaminergic neurons? Lastly, is whatever we are seeing clinically relevant?

Although we may be far from knowing the entire story, these studies provide substantial evidence that what we prescribe to our patients is likely to affect the disease process itself. Carefully designed studies, such as those presented at the AAN annual meeting, together with an increasing understanding of the neurobiology of the disease, will guide us toward yet better treatments.

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The Burden of Movement Disorders in India

— Uday Muthane, MBBS, DM, Department of Neurology, National Institute of Mental Health and Neurosciences, India

The sheer size of the Indian population magnifies numbers of any illness in the community. Together with issues like a low per capita income (US $238.68 yearly) and the fact that only 3% of our population have some insurance, increases the burden of movement disorders. Parkinson's disease (PD) as elsewhere, is the most common movement disorder. Other movement disorders commonly seen here are essential tremors, Wilson's disease and rheumatic chorea.

The age-adjusted prevalence rate of PD in Indians varies between 60 to 100 per 100,000, which is approximately half than the rate in the West. The majority of our population still lives in rural areas (72.2%). Levodopa, anti-cholinergics, amantadine, selegeline and dopamine agonists like bromocriptine, pirebedil and ropinirole are available. These drugs are manufactured locally and prices are considerably cheaper than in the west. However, they are unaffordable to many PD patients due to poverty and lack of insurance. Dopamine agonists are still out of reach to most Indians. Drugs like domperidone and clozapine are available and have improved management of vomiting and psychosis secondary to anti-parkinsonian agents.

CONTINUED ON NEXT PAGE

Launch of MDS CD on Botulinum Toxin Injection Techniques

— Andrew J. Lees, MD, Reta Lila Weston Institute of Neurological Studies, London, United Kingdom

One of the pleasures of working in Europe is the ease of collaborating on international projects with colleagues who are just a short plane ride away. Contributors in centers in the UK, Italy and Germany have produced the first *Movement* Disorder Society – European Section (MDS-ES) educational tool, an interactive CD-ROM on the targeting of muscles for botulinum toxin injection therapy. Dr. Peter Moore, the MDS-ES project coordinator, has worked with Professor Albert Albanese in Rome, Dr. Markus Naumann in Wurzburg, and two British surgeons, Mr. Gerald Brookes and Mr. John Lee, to obtain video footage of a wide range of muscles for demonstration. The *Movement* Disorder Society (MDS) Education Committee Chairman, Dr. Cynthia Comella (Illinois), has contributed additional video footage and participated in the review panel with MDS President, Professor Werner Poewe (Austria), Past-President, Professor Eduardo Tolosa (Spain), MDS-ES Treasurer-Elect, Professor Günther Deuschl (Germany) and MDS-ES Chairman, Professor Andrew Lees (UK). This international panel has provided expertise in the program development and review stages to create a resource for MDS members worldwide. The rich media CD contains video, audio and graphics, and is designed as a clinical and teaching resource for movement disorder specialists.

All MDS members will receive a complimentary copy of the CD as a membership benefit, to be distributed with the MDS newsletter, *Moving Along*. Elan, who has provided an unrestricted educational grant for the CD production, will work with MDS-ES to bring the CD to a wider audience, and to help us monitor the outreach we achieve through this educational project.

The European Federation of Neurological Societies (EFNS) in Vienna

Please support the Movement Disorders program at the EFNS meeting in Vienna, October 26-29, 2002. Designed by the *Movement* Disorders Society-European Section (MDS-ES) convenors, the program has been created to be of particular interest to MDS European members, providing excellent teaching for our general neurologist colleagues and Movement Disorder trainees.

The 2002 MDS-ES Business Meeting will be held on Sunday, October 27, 2002. Full details of the time and venue will be sent in July with the MDS-ES election nomination forms. All MDS members living or working in Europe are invited to attend. Your suggestions and comments on activities and programs you would like us to develop in Europe, will be essential to our planning. Please put October 27 in your diary, and join us for the Section business meeting in Vienna.

One more date for your diary is the EFNS meeting in Helsinki, August 29 – September 2, 2003. We are already working on the Movement Disorders program and promise you another enjoyable learning opportunity! ●

Continued from page 8…

The Burden of Movement Disorders in India

The paradox of health care in India is alarming. Small fractions of doctors (1/3) work in public health care that is affordable, but insurance is available to only a miniscule segment of our population (<3%). This makes specialty care difficult for a common person, as it is difficult to pay consultation fees in the private sector and buy anti-PD medications. This paradox creates an emotional burden to those who care for PD patients here. One cannot debate which drug to start in a poor patient, as only an anti-cholinergic is affordable and, in some, levodopa is possible. Patients with the social insurance, Central Government Health Scheme, restricted to employees of the Central Government, do receive good medical coverage. Unfortunately, even those PD patients with the commonly available medical insurance pay for medical care as this only covers in-patient care. Those in the middle and upper economic class have no choice but to pay for their consultations and medications. Surgery for PD in these circumstances is limited to mainly ablation techniques and those that receive DBS do so at their own cost.

Advantages of our society are good family and social support. This we believe has helped sustain the care for our ill and elderly. We have support groups but only a small number of patients are participating members. A health insurance scheme for the poor has been introduced this year and hopefully this will make a difference in the coming years. ●

European Multiple System Atrophy (EMSA-SG) Study Group Program

— Gregor K. Wenning, MD, PhD, Universität Klinik Fòr Neurologie, Innsbruck, Austria

Recognizing a growing need for therapeutic intervention in MSA, the EMSA-SG was formed in 1999 by 20 research groups in eleven European countries (Germany, Austria, France, United Kingdom, Portugal, Spain, Italy, Sweden, Denmark, Slovenia and Israel.) EMSA-SG is coordinated by Werner Poewe and Gregor Wenning at the University of Innsbruck. In March 2001, EMSA-SG received EC support for a three-year project within the 5th framework program. The project aims to establish a European MSA Registry (EMSA-R), a unified MSA rating scale (UMSARS) as well as a "Core Assessment Program for Interventional Therapy" (CAPIT) in MSA (CAPIT-MSA). CAPIT-MSA will be designed similar to previous EC sponsored concerted efforts in Parkinson's disease (CAPIT-PD, Defer 1999) and Huntington's Disease (CAPIT-HD, Quinn 1996). CAPIT-MSA will comprise a novel set of EMSA-SG diagnostic criteria, a novel Unified Rating Scale (UMSARS) and additional investigations including autonomic function and urodynamic tests as well as structural and functional brain imaging. Task forces have been set up to promote development of the CAPIT components. The CAPIT-MSA trial protocol will be designed and validated through the first ever prospective natural history study of European MSA patients. During the natural history study, EMSA-SG will facilitate future research into ecogenetics and molecular pathology of MSA by virtue of decentralized DNA and brain tissue banking led by Thomas Gasser and Andrew Lees.

These activities will hopefully lead to clinical trial activity within the next few years. A phase II growth hormone intervention trial has already been launched in four EMSA-SG sites. EMSA-SG has established close ties with the Northern American MSA Study Group (NAMSA-SG) chaired by Cliff Shults, San Diego, CA, USA who are presently waiting for NIH approval of their work program which includes a natural history study. Although financial support can only be offered to official EC partners, EMSA-SG welcomes new affiliates in the Study Group who will be regularly updated on the work program and upcoming meetings. A homepage has been set up for all those wishing to contact the Study Group (www.emsa-sg.org/). ●

Announcements

Parkinson Research Grants (2001-2002)

Parkinson's Disease Research Scientist:

We invite you to submit a proposal for the International Research Grants Program (IRGP) of the Parkinson's Disease Foundation.

The IRGP (formerly known as the PDF's Extramural Grants Program) is the oldest and largest competitive program providing private support for Parkinson's research. It is designed to support projects of the highest scientific caliber that are also directly relevant to the study of the causes and cure of Parkinson's disease; complementary to, not duplicative of, other research in the field; with potential to lead to research proposals to the National Institutes of Health and other sources of federal support.

The program offers one-year grants of up to $35,000, none of which can be applied to institutional overhead. Investigators who receive funding from the PDF may not (i) submit any other proposal to the PDF during the same year; nor (ii) receive funding from other foundations for the same project during that year. The Foundation also requests that all published work include credit to the PDF for its support.

Both basic and clinical proposals are eligible for support. Preference will be given to scientists who are at an early stage in their professional careers.

To obtain an application, contact Renay D. Crooms at TEL: 1-212-923-4700; FAX: 1-212-923-4778; or E-mail: rcrooms@pdf.org. ●

Meetings

International Workshop on Parkinson's Disease and Other Movement Disorders – Chennai, February 17-19, 2002

— Niall Quinn, MA, MD, FRCP, The National Hospital for Neurology and Neurosurgery, London, United Kingdom

The T.S. Srinivasan Department of Clinical Neurology and Research, Public Health Center, Chennai and the Madras Institute of Neurology, Madras Medical College, Government General Hospital, Chennai (formerly Madras), hosted a three-day international workshop endorsed by The *Movement* Disorder Society (MDS), academically sponsored by the Institute of Neurology, Queen Square and the Wellcome Trust UK, and chaired by Professors Krishnamoorthy Srinivas and Niall Quinn in Tamil Nadu in Southern India.

The latest population estimate for India from the 2001 census is 1,027,015,247, served by 525 practising neurologists and 125 associate members. A splendid total of 271 neurologists and neurologists in training attended the Chennai workshop. Topics included diagnosis and medical and surgical management of akinetic-rigid syndromes and dystonia, and sessions on Wilson's and Huntington's diseases, paroxysmal movement disorders, movement disorders in children, movement disorders in India, and spinocerebellar ataxias. The invited overseas faculty included Stanley Fahn and Sub Subramony (USA), Jean Aicardi (France), Niall Quinn, Kailash Bhatia, David Burn and

Yoav Ben-Shlomo (UK), Andres Lozano and Mandar Jog (Canada) and Eduardo Tolosa (Spain). Indian faculty included Noshir Wadia, Madhuri Behari, Uday Muthane, Mohit Bhatt, Asha Kishore, Ram Ayyar and Jaya Kumar.

The photograph shows the shawled and garlanded recipients of lifetime awards, (left to right): Jean Aicardi, Stanley Fahn, Noshir Wadia and Niall Quinn, in the company of (left center) Mr. Venu Srinivasan and (right center) Professor Krishnamoorthy Srinivas. ●

Announcements

Tics and Tourette's Syndrome Teaching Slide Kit Available from WE MOVE

Now available from WE MOVE: a newly updated *Tics and Tourette's Syndrome: Symptoms, Etiology, and Approaches to Treatment* slide kit reviewed by Joseph Jankovic, MD and Paul Sandor, MD

WE MOVE's slide kits are used extensively by physician-educators worldwide to teach other health professionals about the diagnosis and management of movement disorders. Physicians may also utilize the kit as a self-study CME activity. The kit includes 35mm slides in PowerPoint format, accompanied by a complete narrative/script. The slides are available for viewing and downloading from the WE MOVE Web site and as freestanding kits with 35mm slides and a full narrative. The treatment section of the tics and Tourette's slide kit includes in-depth information on various pharmacotherapeutic, surgical, and other approaches to treatment. Please contact WE MOVE at 204 West 84th Street, New York, NY. 1-800-437-MOV2 (outside the U.S.: 212-875-8312) or visit the WE MOVE Web site at www.wemove.org for order placement, download or information on other slide kits available from WE MOVE. ●

editorial policy

As part of its democratic commitment, MDS welcomes the input of all its members about the features and articles that appear in this newsletter. Have a compliment or a complaint? Each issue will include a sample of the reader responses we've received. All materials submitted become the property of MDS.

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***August 1-4, 2002**
12th Annual Course: A Comprehensive Review of Movement Disorders for the Clinical Practitioner
Aspen, CO, USA
E-mail: cme@columbia.edu
Web site: www.columbiacme.org

August 23-25, 2002
20th Annual Conference of the Benign Essential Blepharospasm Research Foundation, Inc.
Houston, TX, USA
E-mail: bebrf@ih2000.net

September 9-13, 2002
First Turkish and United States Forensic Sciences Meeting
Istanbul, Turkey
E-mail: alkannn@turk.net
Web site: www.atk.gov.tr

September 18-20, 2002
Parkinson's Disease: The Life Cycle of the Dopamine Neuron
Princeton, NJ, USA
E-mail: conference@nyas.org
Web site: www.nyas.org

***September 18-21, 2002**
4th Alpine Basal Ganglia Club Symposium
Plitvice Lake National Park, Croatia
E-mail: mrelja@mef.hr

September 21-26, 2002
52nd Annual Congress of Neurological Surgeons
Philadelphia, PA, USA
Web site: www.neurosurgery.org

***September 26-27, 2002**
Translating Adenosine A2A Receptor Biology Into Novel Therapies for Parkinson's Disease Conference
Boston, MA, USA
E-mail: michaels@helix.mgh.harvard.edu
Web site: www.neurodegeneration.org

September 27, 2002
Advanced Treatment of Dystonia and Spasticity Workshop Demonstrating the Use of Botulinum Toxin
Chicago, IL, USA
Web site: www.aan.com

October 9-12, 2002
Child Neurology Society Annual Meeting
Washington, DC, USA
E-mail: nationaloffice@childneurologysociety.org
Web site: www.childneurologysociety.org

October 11-14, 2002
The Third Maldives International Conference on: Update in Neurology and Psychiatry
Maldives Islands
E-mail: neuro13@post.tau.ac.il
Web site: www.noga-carmel.com/islands.phtml

October 13-16, 2002
127th Annual Meeting of the American Neurological Association
New York, NY, USA
E-mail: lorijanderson@msn.com

***October 26-29, 2002**
6th European Federation of Neurological Societies Congress
Vienna, Austria
E-mail: headoffice@efns.org
Web site: www.efns.org/efns2002

November 2-7, 2002
Society for Neuroscience Annual Meeting
Orlando, FL, USA
E-mail: info@sfn.org
Web site: www.sfn.org

November 7-10, 2002
Worldwide Dystonia Patient Symposium
Miami, FL, USA
E-mail: dystonia@dystonia-foundation.org
Web site: www.dystonia-foundation.org

November 10-14, 2002
The *Movement* Disorder Society's 7th International Congress of Parkinson's Disease and Movement Disorders
Miami, FL, USA
E-mail: info@movementdisorders.org
Web site: www.movementdisorders.org

***November 14-15, 2002**
Neurological Aspects of Wilson's Disease Symposium
Miami, FL, USA
E-mail: palewitt@ameritech.net or brewergj@umich.edu

***February 20-21, 2003**
Atypical Parkinsonian Disorders: From Protein Dysfunction to Therapeutic Intervention
Innsbruck, Austria
E-mail: ursula.knapp@uibk.ac.at

***March 14-15, 2003**
Transcranial Magnetic Stimulation in Movement Disorders
Genova, Italy
E-mail: giabbr@csita.unige.it

March 22-25, 2003
8th Prague International Symposium of Child Neurology
Prague, Czech Republic
E-mail: info@conference.cz
Web site: www.conference.cz/childneurology

March 29 – April 5, 2003
American Academy of Neurology 55th Annual Meeting
Honolulu, HI, USA
Web site: www.aan.com

June 14-18, 2003
13th Meeting of the European Neurological Society
Istanbul, Turkey
Web site: www.ensinfo.com

June 17-21, 2003
Canadian Congress of Neurological Sciences
Quebec, Canada
E-mail: brains@ccns.org

July 10-15, 2003
6th IBRO World Congress of Neuroscience
Prague, Czech Republic
E-mail: ibro2003@biomed.cas.cz

August 30 – September 3, 2003
7th European Federation of Neurological Societies Congress
Helsinki, Finland
E-mail: headoffice@efns.org

***October 9-11, 2003**
Psychogenic Movement Disorders
Atlanta, GA, USA
E-mail: mark_hallett@nih.gov

October 19-22, 2003
128th Annual Meeting of the American Neurological Association
San Francisco, CA, USA
E-mail: lorijanderson@msn.com

November 8-13, 2003
33rd Annual Meeting of the Society for Neuroscience
New Orleans, LA, USA
E-mail: info@sfn.org

***December 6-7, 2003**
World Parkinson's Day International Symposium
Mumbai, India
E-mail: ktvania@vsnl.com

* Meetings Sponsored/Endorsed by MDS

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