7th International Congress of Parkinson’s Disease and Movement Disorders

T he 7th International Congress on Parkinson’s disease and Movement Disorders was held in the Fountainbleau Hilton Resort and Towers, Miami Beach, between the 10th and the 14th November. The surroundings were beautiful and the sight of sun, surf and sand were a welcome break for the numerous UK delegates.

The meeting itself was of the highest calibre, with a mixed programme, generally well paced, comprising plenary sessions (11 in total) and poster sessions (seven in total). A minor criticism was that with over 1180 posters on display, the time available for viewing was somewhat restricted, necessitating some homework before each session and a clear focus.

When writing a report from such a large meeting, it is impossible not to “cherry pick”, clearly reflecting one’s own preferences (and sometimes attendance!). I will not comment upon the posters, since the space available would make this virtually meaningless (interested readers may refer to the Movement Disorders Journal Supplement 5, 2002 for a full list of abstracts anyway). There was, however, the usual eclectic mix of work, ranging from the nature of Ravel’s neurodegenerative illness and the effect of golf upon Parkinson’s disease, to leading edge genetic and therapeutic studies.

Three reports particularly attracted my attention in the plenary sessions. Vincenzo Bonifati (Italy) described the clinical features of recessive Parkinson’s disease (PD). Notably, however, he announced the gene, DJ-1, believed to underpin the PARK 7 phenotype (onset < 40 years of age, slowly progressive, dystonic features and psychiatric manifestations). This gene is located on chromosome 1p36. Its seven exons encode a ubiquitous 189 amino acid protein thought to modulate transcription and to be involved in the oxidative stress response. The elegant studies described put another tantalising piece into the jigsaw of PD pathogenesis and will undoubtedly spawn important work in other parkinsonian genotypes and phenotypes.

Stanley Fahn (USA) described the results of the ELLDOPA study. This multicentre, randomised, placebo-controlled study examined the effects of levodopa in early PD. Three hundred and sixty-one drug-naive patients were randomised at a time when they did not require anti-parkinsonian treatment to either placebo or one of three doses of levodopa (150mg, 300mg or 600mg per day). Study duration was 40 weeks and the majority of patients were then re-examined after a two-week washout period (the washout period was later extended in some patients). Fifty six per cent of 361 patients underwent I-CIT SPECT at baseline and 95% of these subjects were re-scanned at 40 weeks. Primary end-point was the change in Unified Parkinson’s Disease Rating Scale (UPDRS) between baseline and after 40 week washout.

Unsurprisingly, dyskinesias occurred more frequently in the higher dose L-dopa group (16%) and wearing-off was also more common in these patients. After washout, the total and motor UPDRS scores were improved (-1.4 and -1.3, respectively) in the 600mg/day L-dopa group, compared with baseline, while there was also a highly significant improvement in quality of life on this dose. Patients allocated placebo deteriorated by 7.8 and 5.2 points in the total and motor UPDRS scores, respectively. Professor Fahn discussed the possibility that L-dopa might actually be neuroprotective, although there is an obvious clinical price to pay in terms of motor complications. Furthermore, the results of the SPECT study showed a significantly greater loss of striatal tracer uptake in the higher L-dopa group (-1.4% versus -7.2%). These values were comparable to those previously reported in the CALM-PD study, despite the “contrary” SPECT correlate. Eleven per cent of subjects had normal SPECT scans; a new term to describe these patients was coined “SWEDDs” (subjects without evidence of dopaminergic deficits). The more cynical observer might call these patients essential tremor!

Warren Olanow (USA) presented the results from a two-year double-blind controlled trial of foetal nigral transplantation in PD. Thirty-four patients with advanced disease (aged 35-75) were allocated to either bilateral transplantation with one donor per side, four donors per side or bilateral placebo surgical procedures (the inner cranial vault and dura mater were not penetrated). Some jaws dropped in the audience when they heard that the placebo patients, like those in the active treatment groups, also took cyclosporine A for six months. The primary endpoint for the study was the change in motor UPDRS score in a practically defined “off” state. Two deaths, unrelated to the transplant procedure, occurred during the study. A post-mortem in one subject (who had received four doors per side) indicated approximately 100,000 tyrosine hydroxylase-positive surviving cells per striatum. Despite this, and the fact that 18F-dopa PET scans showed a significantly increased tracer uptake in transplanted patient groups, the study was “negative” as clinical (primary and also secondary) endpoints did not show a significant improvement (p=0.24 for primary endpoint).

There was no benefit in younger versus older patients, but patients with less severe disease (motor UPDRS < 49 at study entry) did show a greater improvement. Furthermore, and consistent with the earlier Freed study, 13 of the 23 patients receiving transplants showed “off” medication dyskinesias (so-called “runaway” dyskinesias). Three of these patients were so disabled by their dyskinesias, they required “additional surgery”. Olanow presented the data beautifully, but it is impossible not to feel deflated by another negative transplantation study. No doubt the media will go to town and suggest that this is the last nail in the coffin for this procedure. Certainly a more measured approach, as advocated by workers in this area in the UK, with greater emphasis on underlying neurobiological mechanisms and more exhaustive initial use of animal models, is indicated if this treatment is to be resurrected.

In terms of “all round education and enjoyment” the plenary session on tauopathies took the biscuit for me. Perhaps it was the more clinically-based approach, supplemented by video and case studies that got this off to such a good start. David Neary’s talk, concerning the phenotypic and pathological correlates of frontotemporal dementia, was outstanding and of particular help to those clinicians, including myself, who do not (knowingly) see these patients very often. This was followed by Peter Heutink (Netherlands) who gave an accessible state of the art dissection of the molecular genetics of the tauopathies.

Other high spots included a debate between Professor Andrew Lees (UK) and Charles Duyckaerts (France) with the title “Is Parkinson’s disease with dementia and dementia with Lewy bodies the same disease?”. Professor Lees argued they were and with the use of a well-practised debating style, humour and no little substance, carried the day for me (even though no “official” vote was taken).

David Brooks (UK) gave the Stanley Fahn lecture (yes, it is possible in the USA to still be alive and have a lecture named after you!). There is no auditorium too large to cramp his inimitable style, laced with humorous interjections, in clearly getting across complex imaging paradigms and results. He briefly described the outcome of the REAL-PET study in showing that patients receiving the dopamine agonist ropinirole displayed significantly less progression in their 18F-dopa scans when compared with patients allocated levodopa. His talk also, however, touched upon a wide range of other topics including the application of PET to non-motor complications of PD such as depression (reduced noradrenergic function in limbic areas) and dementia (potential use of the amyloid-binding tracer 11C-PiB).

In conclusion, I found that attendance at this meeting was extremely rewarding from a professional perspective. This seems to have been the view of the majority of UK colleagues who I saw during the five days in Miami. Furthermore, I also managed to keep my sun-tan to a respectable shade!