Subthalamic stimulation for Parkinson's disease: a new benchmark

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Editorial commentary

Defining the principles of palliative care in amyotrophic lateral sclerosis

Brian Dickie

Amyotrophic lateral sclerosis (ALS) is a disease of low prevalence but high multidisciplinary need. The syndromic nature of ALS, the speed of disease progression and the changing requirements of patients and caregivers represent considerable challenges in ensuring the successful coordination of care. The review paper by Bede et al identifies common themes in timing and effective integration of specialist palliative care interventions, reviewing the development of guidelines and variations in service provision across different healthcare systems, as well as considering current tools for measuring impact (see page 413).

In support of their call for an international framework, the authors refer to striking differences in the timing, availability and impact of palliative interventions. Whether these differences are down to economic, educational, legal and/or cultural factors, marked differences in provision do offer rough comparators to assist with refining palliative care provision. However, greater emphasis needs to be placed on developing complementary systems for longitudinal clinical audit and data collection, with particular emphasis on quality of life measurement, if we are to more effectively establish what works and what doesn’t.

The authors rightly conclude that a “dynamic, evidence-based framework for integrating palliative care into the management of ALS is urgently required”. However, the evidence base to support the impact of specialist interventions remains thin—and is even more scarce when addressing multidisciplinary care. Many of these black holes in our knowledge have been identified but the principal barrier to performing high quality palliative care research is a lack of resource. We need more research to convert clinical experience into clinical evidence and we need more funding to support it. The Patient Associations may play an important role in this context: in funding outcomes focused research, in influencing governmental agencies to support healthcare research in ALS and ensuring that research activity incorporates the views and priorities of people affected by the disease.

High quality healthcare provision requires considerable investment—both in terms of financial and human resource—but the development of an international framework, based on current national models of best practice and supported by research and educational programmes, has the potential to deliver tangible benefits for people with ALS and their caregivers across the world.

Competing interests None.

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Paul Krack

Foltynie et al recently reported on the outcome of bilateral subthalamic stimulation (STN DBS) in Parkinson’s disease (PD) using MRI-based targeting without microrecording and using one single trajectory per target, followed by immediate stereotactic MRI to verify targeting accuracy. The outcome in this series of 79 consecutive patients managed in the Unit of Functional Neurosurgery at the Queen Square in London is remarkable in terms of both safety and efficacy (see page 358).

The leitmotif of this surgical school is that the first aim of elective functional surgery is not to harm, and so ventriculography was replaced by stereotactic CT early on, before moving to direct MRI-based targeting. Stereotactic imaging has become an integral part of the functional stereotactic procedure, performed under surgeons’ direct supervision. Furthermore, the authors do not use microelectrode recording with multiple brain trajectories, in order to minimise the risk of brain haemorrhage. This is different from the practice in the vast majority of surgical centres that consider microrecording as a gold standard in order to optimise the precision of targeting.

In the study by Foltynie et al, off-medication motor signs, as measured by the Unified Parkinson’s Disease Rating scale (UPDRS), improved by 52%; l-dopa-induced...
dyskinesia improved by 52%; l-dopa equivalent dosage was reduced by 59%; and quality of life (measured with a disease-specific scale) improved by 18%. The outcome, based on these data, is in the upper range of published outcomes. What differs from the rest of the literature is that the surgical side effects were extremely low. The most relevant side effect was a decrease in speech intelligibility in a subpopulation of patients. There was no asymptomatic or asymmetric haemorrhage detected on systematic postoperative MRI, possibly due to the small sample size. MRI-guided STN DBS in PD is predicted by the response of l-dopa, which is not the case with the above-mentioned recent studies.

Applying the highly complex technique of DBS is not like simply prescribing a drug which is given in the same way across centres. When starting a new surgical technique, learning curves seem ineluctable. However, suboptimal outcome from surgery in PD cannot be accepted as a death. The reasons for every single failure must be carefully analysed in order to be minimised subsequently. The outcome of surgical treatment depends on the training of both the surgeons and the neurologists, and the study by Foltynie et al convincingly illustrates the importance of a trained dedicated team. Foltynie et al’s paper indeed shows an unprecedented risk/benefit ratio, thus providing a new benchmark for all centres involved in PD surgery.

Competing interests PK received research grant and reimbursement of travel costs to scientific meetings from Medtronic, a manufacturer of DBS devices, and from the following manufacturers of antiparkinsonian drugs: Euthérapie, Novartis, GSK, Boehringer Ingelheim, Lundbeck. He has served on the Advisory Board of Novartis.

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