LETTER TO THE EDITOR

Reply: Rate of progression determines the clinical outcome after neural transplantation in Parkinson's disease

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doi:10.1093/brain/awl113

Sir, we would like to thank Dr Linazasoro for his interesting comments to our paper (Piccini *et al.*, 2005).

On the basis of our PET finding of a simultaneous occurrence of degenerative and regenerative changes in the dopaminergic system of grafted Parkinson's disease patients, he suggests that rate of disease progression may affect the clinical outcome after neural transplantation and that it should be evaluated in patients who are candidates to receive this procedure. A faster disease progression with further degeneration of non-implanted areas might, in fact, reduce or even abolish the beneficial effects produced by the striatal graft. Dr Linazasoro also revised the recent double-blind studies, analysing, where possible, patients' demographics to support his supposition.

We fully agree with his consideration and we feel that patients involved in such studies should be studied by PET scan ideally twice preoperatively. However, it must be said that unfortunately there are not universally accepted measurements of the rate of disease progression in Parkinson's disease.

Additionally, we feel that factors other than rate of disease progression should also be accounted for. Disease duration itself, independently from rate of progression, is certainly one of these factors. Patients with a longer history of disease are more likely to have larger areas of degeneration in areas outside the dorsal striatum. Different pathogenetic subgroups of idiopathic Parkinson's disease may also be important and should be carefully identified.

In conclusion, we believe that the further development of neural transplantation certainly requires some methodological refinements but also a better understanding of where and how the degenerative process starts and how it spreads and progresses in Parkinson's disease.

References

Piccini P, Pavese N, Hagell P, Reimer J, Bjorklund A, Oertel WH, et al. Factors affecting the clinical outcome after neural transplantation in Parkinson s disease. Brain 2005; 128: 2977–86.