

MRgFUS thalamotomy may spare dopaminergic therapy in early-stage tremor-dominant PD: a pilot study

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Introduction: MRgFUS thalamotomy is a safe and effective procedure for drug-resistant tremor in Parkinson's disease patients.

Objectives: The primary objective of this study was to demonstrate that MRgFUS VIM thalamotomy in early-stage tremor-dominant PD patients may prevent an increase in dopaminergic medication 6 months after treatment, compared to a matched control sample of PD patients on standard medical therapy alone.

Methods: We selected patients with early-stage PD who underwent MRgFUS VIM thalamotomy (PD-FUS) and patients treated with only standard dopaminergic therapy (PD-ODT) with a 1:2 ratio. We collected demographical, clinical data and adverse events at baseline, 6-months, and 12-months after thalamotomy.

Results: We included 10 patients in the PD-FUS group and 20 patients in the PD-ODT group. We found a significant increase in total LEDD and LEDD of levodopa plus MAOB-I in the PD-ODT group 6 months after the procedure.

Conclusions: In early-stage tremor dominant PD patients, MRgFUS thalamotomy may be useful to reduce tremor and avoid the need to increase dopaminergic medications.

References

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