Pallidal Deep Brain Stimulation In the Treatment of Meige Syndrome”

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Introduction

Meige syndrome (MS) is characterized by blepharospasm, facial, oromandibular, and cervical dystonia. The medical treatment of this condition is challenging and unsuccessful over long time. Recent case reports and small clinical series showed that bilateral deep brain stimulation (DBS) of globus pallidus pars interna (GPi) improves dystonic features of MS validated by Burk-Fahn -Marsden Dystonia Rating Scale (BFMDRS) (1-3).

Methods

We report on our experience in using bilateral GPi DBS in 5 cases of MS. We present short-term (3 months) follow-up as well long-term (from 24 months to 48 months) results. Preoperative and postoperative BFMDRS assessments were performed on each patient. The postoperative BFMDRS scores was done when both stimulators were switched on and compared to baseline scores. Four attached videos show the effects of bilateral GPi DBS on MS.

Conclusions

Our results showed that bilateral GPi DBS in MS is effective and safe, if conservative treatment options failed. The benefit is not only observed at short but also at long-term follow-up ranging from 24 to 48 months postoperatively.

Results

Bilateral GPi DBS reduced the BFMDRS total movement score by 75 % at short-term follow-up, and by 87 % at long-term follow-up when compared to baseline scores. The BFMDRS total disability score was reduced by 46 % at short-term follow-up, and by 56 % at long-term follow-up when compared to baseline scores.

Learning Objectives

The following learning objectives of the study are:

1) Patients with disabling Meige syndrome may benefit from bilateral GPI stimulation.

2) The response to stimulation is fast and is present at 3 months follow-up period. (early postoperative period).

3) The clinical improvement is seen at longer follow-up ranging from 24 to 48 months with still good control of Meige syndrome.

References

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