

DEEP BRAIN STIMULATION (DBS) SHOULD BE STARTED BEFORE MOTOR COMPLICATIONS OCCUR

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DBS is an effective symptomatic treatment of Parkinson's disease (PD) when disabling symptoms are not satisfactorily controlled by medications. The best time to operate remains debated.

I will argue that DBS should not be started before motor complications occur:

- The accurate diagnosis of idiopathic PD, the only form that responds to DBS, is more difficult in the early stage. We cannot predict which patients will do well with medical treatment and might never need surgery and which are going to fluctuate.
- DBS carries a small risk of severe side effects, like brain hemorrhage, and a higher of other problems, that have to be balanced with potential benefits
- DBS is a symptomatic treatment. There is no evidence in humans of a disease modification effect that could justify early surgery
- We do not know if DBS at an early stage would improve late stage PD. The effect of the DBS tends to be less over time. This is probably largely related to disease progression nevertheless there is a possibility that some tolerance effect could occur. Patients operated too early could lose the benefits by the time they are likely to need it more.
- Not operating early leaves the patients the option of choices in the future between DBS and other therapies (gene and cell therapies) that might become available.
- Another issue is the cost of the procedure and the follow-up.

Very long term comparative studies of patients operated at different stage might provide a definite answer.