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## Sedation for Patients with Parkinson's Disease Undergoing Ophthalmologic Surgery

To the Editor:—Parkinson's disease consists of tremor, rigidity, bradykinesia, and, eventually, difficulties in posture. The neuropharmacological defect consists of a deficiency of dopaminergic input in the basal ganglia. There is also a cholinergic input which opposes and normally balances the dopaminergic effect. Drug therapy for the disease includes increasing dopaminergic effects and/or inhibiting cholinergic transmission.

Patients presenting for ophthalmologic surgery under local anesthesia with sedation may possess a head tremor making it impossible for the surgeon to operate. None of the usual modes of sedation (narcotics, benzodiazapines) act to diminish the tremor, and other sedatives (phenothiazines, butyrophenones) are contraindicated because they block the central dopamine receptor. Diphenhydramine (Benadryl®) is an H<sub>1</sub> receptor-blocking antihistamine that has central anticholinergic activity, is inexpensive, and is generally available on anesthesia carts for the treatment of allergic reactions. Anticholinergic drugs have been replaced as first-line therapy by L-dopa, but L-dopa (and central dopamine agonists such as bromocriptine) cannot be given intravenously.2 We have found that diphenhydramine administered in 25-mg iv increments produces

a well-sedated patient with minimal tremor. We have not encountered oversedation or delirium with the use of diphenhydramine in this setting.

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