Surgical complications of deep brain stimulation no higher risk for older Parkinson's patients

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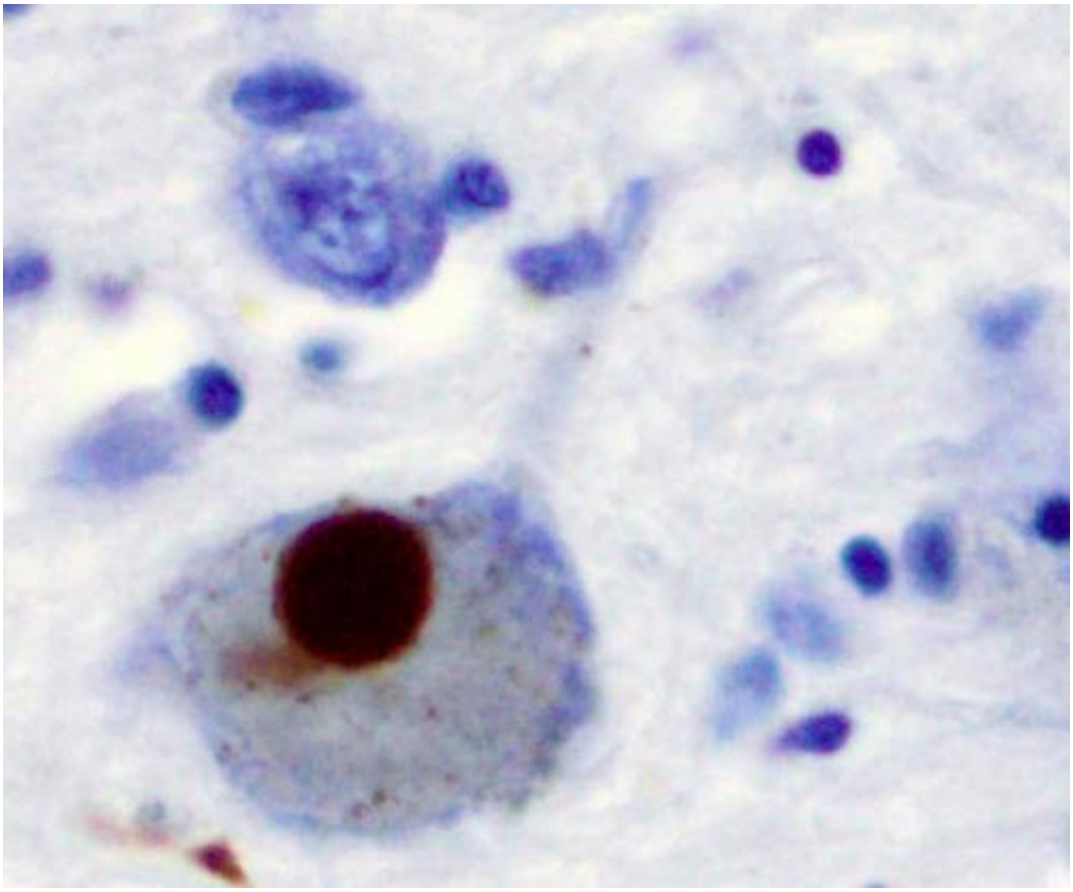

Immunohistochemistry for alpha-synuclein showing positive staining (brown) of an intraneural Lewy-body in the Substantia nigra in Parkinson's disease. Credit: Wikipedia

Implantating deep brain stimulation devices poses no greater risk of complications to older patients than it does to younger patients with Parkinson's disease, researchers at Duke Medicine report.

The findings, published Aug. 25, 2014, in the journal *JAMA Neurology*, ease concerns that patients older than age 75 are poorer candidates for deep brain stimulation (DBS) because they may be prone to bleeding, infections or other complications that can arise after surgeries.

"Parkinson's disease is one of the most common movement disorders and it primarily afflicts older people," said senior author Nandan Lad, M.D., Ph.D., director of the Duke Neuro-Outcomes Lab. "For many, movement disorders can be managed with medications. But as the disease progresses – and as people age – tremors and side effects of medication, including involuntary muscle movements, are less controllable. So it's this older population for whom DBS could be quite beneficial."

In the study, Lad and colleagues analyzed data from more than 1,750 patients who underwent DBS from 2000-2009. Of those, 132 patients, or about 7.5 percent, experienced at least one complication within 90 days of having the DBS device implanted. Complications included wound infections, pneumonia, hemorrhage, or pulmonary embolism.

In the Duke-led analysis, the researchers determined that increasing age did not significantly affect the overall complication rates, although the 90-day risk of older patients acquiring pneumonia was elevated. Lad said this complication is typical among older people undergoing surgeries.

"Our study should help patients and families considering DBS as a potential treatment option for managing the symptoms of Parkinson's disease," Lad said. "It also provides guidance to surgeons about the risks of common complications among older patients."

Lad said the findings could work to remove age as a potential criterion to exclude patients from getting DBS, which is currently under-utilized overall and even more so among older people with Parkinson's disease.

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