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Study Finds Older Patients with Trigeminal Neuralgia Have Better Pain Outcomes After Microvascular Decompression

BY LIZETTE BORRELI

Older patients with typical trigeminal neuralgia (TN) had better long-term pain outcomes following microvascular decompression (MVD), according to a retrospective and observational study, published online on March 17 in *Neurosurgery*.

Male gender and preoperative medication responsiveness were among the factors associated with lower long-term pain scores. Women experienced worse outcomes than men, even those among the older age group. The researchers believe different underlying pathophysiology may contribute to gender differences in outcomes.

TN is a common neuralgia in the older population, specifically in women, affecting the trigeminal nerve in the face, which causes episodes of mild to severe electric-shock-like facial pain that lasts from a few seconds to minutes.

Compared to other surgical interventions, MVD has a longer duration of pain control with low mortality and complications rates, but its invasiveness has remained

a cause for concern. Typically, pharmacologic treatment medications are the first line of therapy for TN. But, for patients with medically refractory pain or whose treatment is limited by medication side effects, MVD can provide a long-term surgical treatment for TN.

"Our finding of better long-term pain outcomes in older patients adds additional weight to the risk benefit analysis in this patient group," wrote the researchers, led by Sarah K. Bick, MD, a neurosurgeon in the department of neurosurgery at Massachusetts General Hospital in Boston.

Between January 1, 2004 and December 31, 2013, a total of 124 patients with typical TN who demonstrated neurovascular compression on preoperative imaging, were followed for an average of 42.2 months. To determine the relationship between age and the efficacy of MVD for TN, participants were divided into two age groups: under 60 and 60 years of age and older. TN symptoms in participants were quantified using the Barrow Neurologic Institute (BNI) Pain Score: good pain control corresponds to a BNI score 1-2 and poor pain control to a BNI score of 3 to 5.

At the most recent follow-up, patients in the 60 and older group had significantly lower pain scores of 1.57 compared to 2.18 in the under 60 group. Moreover, most older patients had good pain control outcomes compared to younger patients. No significant differences were found in preoperative pain scores.

The researchers noted several study limitations, including its small sample size and retrospective nature. In addition, they said they did not control for which patients were referred to MVD versus other less invasive procedures.

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he served on their advisory panels. The authors do not report any conflicts of interest in any of the drugs, materials, or devices in the study.

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Bick SK, Huie D, Sneh G, et al. Older Patients Have Better Pain Outcomes Following Microvascular Decompression for Trigeminal Neuralgia. *Neurosurgery* 2018. Epub 2018 Mar 17.

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