

# Migraine surgery for teens—good results in initial experience

May 29 2015

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As in adults, migraine surgery is effective for selected adolescent patients with severe migraine headaches that don't respond to standard treatments, reports a study in the June issue of *Plastic and Reconstructive Surgery*, the official medical journal of the American Society of Plastic Surgeons (ASPS).

ASPS Member Surgeon Bahman Guyuron, MD, Emeritus professor of [plastic surgery](#) at Case School of Medicine, Cleveland, and colleagues report good outcomes in an initial experience with [migraine surgery](#) in younger patients. They write, "Our data demonstrate that surgery for refractory [migraine headaches](#) in the adolescent population may improve and potentially completely ameliorate symptoms for some."

## Young Patients Can Benefit from Migraine Surgery Too

The researchers describe their experience with migraine surgery in 14 patients under age 18. Dr. Guyuron developed the migraine surgery techniques after noticing that some migraine patients had reduced headache activity after undergoing cosmetic forehead lift procedures going back to year 2000.

The surgery targets "trigger sites" in the nerve branches that produce headaches, identified by preoperative evaluation. Trigger sites are detected using a constellation of symptoms, nerve blocks, ultrasound

Doppler and CT scans. Dr. Guyuron and his team have published 24 articles in peer-reviewed journals on this topic and efficacy of the surgery, and have another 12 research projects in process. Five additional independent centers have confirmed Dr. Guyuron's findings.

All teen patients in the experience had debilitating migraine attacks that continued despite recommended medications. The patients were 11 females and three males, average age 16 years. One patient underwent two procedures targeting different trigger sites. Average follow-up was about three years, and at least one year in all patients.

In this group of young patients, surgery was highly effective in reducing migraine headaches. Average headache frequency decreased from 25 per month before surgery to five per month afterward. Average migraine severity score decreased from 8.2 to 4.3 on a ten-point scale.

The average time of [migraine attacks](#) also decreased from about 12 hours to 4 hours. Five of the 14 patients were completely free of migraines after surgery. One patient had no change in migraine frequency, although attacks were shorter and less severe.

Migraine headaches are a common problem in children and adolescents, and have a significant impact on mental and physical health for patients and their families. Treatment options are limited. One study has reported that nearly one-fourth of children with neurologist-diagnosed migraine don't respond to recommended medications. "This represents a large group of adolescent migraine patients with continued symptoms in spite of specialized medical treatment," Dr. Guyuron and coauthors write.

Although the experience is small and preliminary, the results suggest that migraine surgery, like in adults, is safe and effective in teenaged patients. No complications were encountered in this group of young patients. As in adults, surgery is performed only after careful evaluation

in patients who don't respond to standard migraine treatments, who have identifiable trigger points and the family history confirms continuation of migraine headaches from childhood to the adult age.

"Identifying the adolescent patient who would benefit from surgery is the most important aspect of surgical intervention," Dr. Guyuron and colleagues write. They emphasize the need for "more in-depth and prospective studies" to confirm the effectiveness of migraine surgery, and to weigh the risks and benefits of surgery for younger [patients](#).

**More information:** "A Retrospective Review of the Outcomes of Migraine Surgery in the Adolescent Population" [DOI: 10.1097/PRS.0000000000001270](#)

Provided by Wolters Kluwer Health

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