

Medication helps improve vision for patients with neurological disorder

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In patients with idiopathic intracranial hypertension and mild vision loss, the use of the drug acetazolamide, along with a low-sodium weight-reduction diet, resulted in modest improvement in vision, compared with diet alone, according to a study in the April 23/30 issue of *JAMA*, a neurology theme issue.

Idiopathic intracranial hypertension (IIH) is a disorder primarily of overweight women of childbearing age, characterized by increased intracranial pressure with its associated signs and symptoms, including debilitating headaches and vision loss. Acetazolamide is commonly used to treat this condition, but strong evidence to support its use is lacking, according to background information in the article.

Michael Wall, M.D., of the University of Iowa, Iowa City, and colleagues with the NORDIC Idiopathic Intracranial Hypertension Study Group Writing Committee, randomly assigned 165 participants with IIH and mild visual loss to receive [acetazolamide](#) or matching placebo for 6 months to determine its effect on reducing or reversing visual loss. All participants were also asked to follow a low-sodium weight-reduction diet.

The average improvement in perimetric mean deviation (PMD; a measure of global visual field loss) was greater with acetazolamide than with placebo. In addition, there were improvements in papilledema (optic disc swelling) and vision-related quality of life with acetazolamide. Participants who received acetazolamide also

experienced a greater reduction in weight.

There were few unexpected adverse events associated with acetazolamide use.

"This is the first multicenter, double-blind, randomized, controlled clinical trial, to our knowledge, to show that acetazolamide improves visual outcome in IIH," the authors write. "The clinical importance of this improvement remains to be determined."

"The obesity epidemic has increased the prevalence of pseudotumor cerebri [idiopathic intracranial hypertension]. Consequently, the health care costs associated with the treatment of this disease have escalated sharply," writes Jonathan C. Horton, M.D., Ph.D., of the University of California, San Francisco, in an accompanying editorial.

"The NORDIC trial has provided solid evidence that patients can be treated effectively by weight loss and acetazolamide. Their visual acuity and visual fields should be tested regularly, at a frequency that depends on the severity of their condition. If vision is failing despite medical treatment, rapid surgical intervention is necessary."

"Additional studies are needed to refine the management of patients with pseudotumor cerebri to ensure preservation of visual function."

More information: [DOI: 10.1001/jama.2014.3312](https://doi.org/10.1001/jama.2014.3312)
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