REPORT

Protect Against Destructive Migraines

By Stephen Grant

Each day, **14 million** people experience the paralyzing pain of migraines.¹ Every **10** seconds someone is admitted to an emergency room with a migraine-related condition.¹

As painful and debilitating as migraines can be, scientists never believed they caused any long-term damage.

*But they were wrong.*

Scientists have recently uncovered an alarming discovery: Migraines cause lasting brain damage that is closely related to the changes seen in seizures, strokes, and dementia.²,³ Indeed, having a history of migraines is turning out to be a risk factor for some of the most-feared chronic brain disorders.²,⁴-⁶

Current migraine treatments include **drugs** originally developed for treating epilepsy.⁷-⁹ Although these drugs are effective in the short term, they were never meant for long-term use, they are fraught with side effects, and they fail to address the underlying cause.⁷,⁹

As scientists searched for treatment alternatives to anti-epileptic drugs, they uncovered two ingredients that provide a therapeutic dual-action against the changes in the brain that lead to migraines.

By restoring chemical balance to the brain and improving brain blood flow, **gastrodin** and **magnesium** target the underlying mechanisms behind crippling migraine pain, providing safe and effective relief for crippling migraine pain.¹⁰-¹⁴

**GETTING TO THE ROOT OF MIGRAINE PAIN**

Brain imaging studies show that people with migraines have visible abnormalities that are similar to those seen in stroke victims and in people with dementia.¹⁵,¹⁶ And some large-scale epidemiological studies suggest that people with chronic migraines are at increased risk for strokes and dementia.¹⁷,¹⁸

An abrupt reduction in brain blood flow occurs during an ischemic stroke, and more gradually in the condition known as **vascular dementia**.¹⁹,²⁰ Similarly, before and during a migraine attack, blood flow in specific brain regions begins to drop.²¹-²³ In all three cases—stroke, vascular dementia, and **migraines**—the result is increased vulnerability of brain cells to dysfunction, degeneration, and eventually death.¹⁹-²³

But brain blood flow disturbances are just part of the picture in migraine headaches. In addition to (and perhaps as a result of) those disruptions, people with migraines show a harmful imbalance in the brain’s **excitatory and inhibitory chemical activity**.⁴,²⁴,²⁵

**THE MIGRAINE/SEIZURE CONNECTION**
Normally, your brain maintains a healthy balance between excitatory and inhibitory activity by modulating neurotransmitters such as GABA.

When you do not have enough GABA, you can end up with the uncoordinated electrical “storm” that presents itself as an epileptic seizure. We now know that a milder version of this process occurs during a migraine.\textsuperscript{3,26}

Because the imbalance between excitatory and inhibitory neurotransmitters is common to both migraines and to seizures, anti-epileptic drugs might appear to be a promising treatment option for migraine sufferers. Such drugs generally elevate the GABA-related activity in the brain, which has a calming, inhibitory effect.\textsuperscript{5,9} They also reduce concentrations of excitatory neurotransmitters, further restoring a normal balance.

The problem is that seizure drugs are loaded with adverse effects and were never meant to be used on a long-term basis for the prevention of something like a migraine.\textsuperscript{7,9} In fact, the US Food and Drug Administration has issued a warning that all anti-epileptic drugs are associated with increased risk of suicidal ideation and behavior.\textsuperscript{7}

Fortunately, magnesium formulations and gastrodin work to improve cerebral blood flow and restore neurotransmitter input as do anti-epileptic drugs… but with a much better safety profile.\textsuperscript{11-13,27-32} The result is a natural treatment that has been proven to reduce the number and severity of migraine attacks.\textsuperscript{30}

REDUCE THE NUMBER AND DURATION OF MIGRAINE ATTACKS

**Gastrodin**, originally extracted from the root of the orchid *Gastrodia elata*, has been used for centuries in traditional Chinese medicine, especially for disorders involving the central nervous system such as headaches and seizures as well as stroke and dementia.\textsuperscript{33} Now, these effects have been validated by modern science.

In one clinical trial, gastrodin was found to reduce the total number and the duration of migraine attacks—and was even more effective than the leading drug flunarizine.\textsuperscript{30} Other studies have also shown that gastrodin has a higher overall effective rate when compared to flunarizine.\textsuperscript{34-36}

**How it Works**

Studies show that gastrodin-based formulas improve brain blood flow, which is commonly reduced during migraines.\textsuperscript{12,29} In fact, due to gastrodin’s powerful effect on blood flow, doctors in China use it to treat stroke victims, whose decrease in brain blood flow is life-threatening.\textsuperscript{37,38}

But perhaps gastrodin’s most exciting mechanism of action stems from its ability to modulate both excitatory and inhibitory neurotransmitters: It raises GABA levels to normal by blocking the enzymes that break it down,\textsuperscript{11,27} and it decreases levels of excitatory neurotransmitters.\textsuperscript{28,39,40}

Restoring this balance has been shown to be neuro-protective, even against the massive decrease in brain blood flow seen in strokes.\textsuperscript{28,33,39}

Clearly, gastrodin’s multiple mechanisms of action make it an effective choice in the treatment and prevention of migraine headaches. But as we’re about to see, adding magnesium enhances the benefits of gastrodin for comprehensive migraine prevention.

**MAGNESIUM FOR MIGRAINE RELIEF**
Magnesium supplementation has been proven to be effective at preventing and reducing the duration of migraine headaches—with one dramatic study demonstrating a complete disappearance of pain in 87% of those given intravenous magnesium sulfate—and 100% of patients responding to treatment.41

And in another impressive study, 80% of patients receiving intravenous magnesium sulfate experienced complete pain relief within 15 minutes of the injection, along with complete elimination of hypersensitivity to light or sound.42

Doctors in hospitals and clinics have even started using intravenous magnesium sulfate to treat an existing migraine headache.41-44

Clinical trials have demonstrated the benefits of oral magnesium as well. One study found that 360 mg of magnesium reduced the number of days women experienced headaches during their menstrual cycles,45 a study of both male and female migraine patients found that 600 mg/day of magnesium in the form of trimagnesium dicitrate significantly reduced the incidence of migraine headaches,46 and another study found that magnesium supplementation reduced the irritation of facial and neck muscles that is common in migraines.47

In total, more than a half a dozen solid clinical trials have now demonstrated the utility of oral magnesium for preventing migraines and reducing their severity.45-51

How it Works

Magnesium is increasingly being recommended for migraine prevention—and for good reason.13,50,51 When it comes to treating and preventing migraines, the mineral magnesium is able to work hand-in-hand with gastrodin to improve brain blood flow and to help balance the brain’s neurotransmitters.

Studies show that up to 50% of migraine patients are deficient in magnesium during an attack, and that they have a high ratio of calcium to magnesium.13,52 This imbalance sets the stage for the contraction of brain blood vessels resulting in a reduction of blood flow.52

Researchers using high-tech Doppler ultrasound to measure blood flow velocity in a major brain artery have definitively proven that supplementation with magnesium does increase both brain blood flow and its velocity.48,53

Like gastrodin, magnesium also has beneficial effects on the balance of excitatory to inhibitory neurotransmitters. Magnesium is a natural blocker of the excitatory receptor on brain cells, so when ample magnesium is available those receptors don’t trigger the excitatory electrical impulse.54-56 This allows the brain to move into its more balanced, calm mode.

SUMMARY

Despite the fact that migraine headaches affect around 18% of American women and 6% of men, mainstream medicine has yet to find a safe, long-term way to prevent this debilitating condition.1

Two natural substances have now been found to be effective in preventing and often in treating migraine headaches. Together, gastrodin and magnesium target the underlying mechanisms of migraines, improving brain blood flow and restoring balance to the brain chemicals neurotransmitters.11-13,27-32

By calming the brain and reducing its dangerous level of excitotoxicity, gastrodin and magnesium have been shown to minimize or eliminate migraine headaches.11,27,28,30,39,40,54-56 This is especially important as we learn how much migraines have in common with debilitating disorders such as strokes and dementia—and how greatly migraines raise your risk for those conditions.2,17,18

If you have any questions on the scientific content of this article, please call a Life Extension® Health Advisor at 1-866-864-3027.

REFERENCES
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