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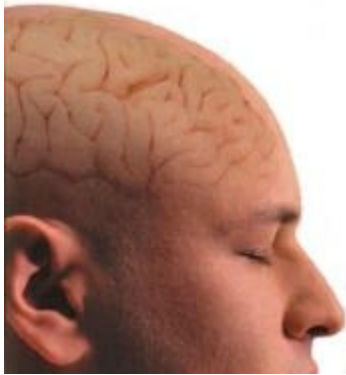
On The COVER

STAYING MENTALLY SHARP

European 'Smart Drug' Now A Dietary Supplement

Vinpocetine is a medication used throughout the world to treat brain aging. It's now available to Americans, either as an individual supplement or as part of the Foundation's Cognitex formulation. The scientific literature provides persuasive evidence that this plant extract can improve memory and cognitive function.

By William Faloon



Vinpocetine was introduced into clinical practice 22 years ago in Hungary for the treatment of cerebrovascular disorders and symptoms related to senility. Since then, it has been increasingly used throughout the world in the treatment of cognitive deficits related to normal aging.

Vinpocetine, a pharmaceutical extraction from the periwinkle plant, has become a popular "smart drug" that Americans import from Europe for personal use. A recent ruling in Federal court makes vinpocetine legally available in the United States as a low-cost dietary supplement.

Vinpocetine is now sold in 5-mg tablets, and has been added as well to the new Cognitex formula.

Vinpocetine functions via several important mechanisms to correct multiple known causes of brain aging. It is well-established that normal aging results in a reduction of blood flow to the brain and a decrease in the metabolic activity of brain cells. The biological actions of vinpocetine initially showed that it enhances circulation and oxygen utilization in the brain, increases tolerance of the brain toward diminished blood flow, and inhibits abnormal platelet aggregation that can interfere with circulation or cause a stroke.

More recent studies demonstrate that vinpocetine offers significant and direct protection against neurological damage caused by aging. The molecular evidence indicates that the neuroprotective action of vinpocetine is related to its ability to maintain brain cell electrical conductivity and to protect against damage caused by excessive intracellular release of calcium. Vinpocetine enhances cyclic GMP levels in the vascular smooth muscle, leading to reduced resistance of cerebral vessels and increased cerebral blood flow.

It is interesting to note that Viagra, the widely publicized sex drug, and vinpocetine both work in the same way to improve blood flow. Vinpocetine's improvement in blood flow is specific to the brain, but like Viagra, vinpocetine possesses a mechanism that improves blood flow by inhibiting a phosphodiesterase enzyme that degrades cyclic GMP. The degradation of cyclic GMP causes arterial constriction and reduced blood flow. By inhibiting a phosphodiesterase enzyme, vinpocetine increases blood flow to the brain just as Viagra increases blood flow to the genitals.

In a double-blind clinical trial—that is, a medical study in which neither the subject nor the persons administering the treatment know which treatment a subject is receiving—vinpocetine was shown to effect significant improvement in elderly patients with chronic cerebral dysfunction. Forty-two patients received 10 mg of vinpocetine three times a day for 30 days, then 5 mg three times a day for 60 days. Placebo tablets were given to another 42 patients for the 90-day trial period. Patients on vinpocetine scored consistently better in all evaluations, including measurements on the Clinical Global Impression (CGI) scale, the Sandoz Clinical Assessment Geriatric (SCAG) scale, and the Mini-Mental Status Questionnaire (MMSQ). There were no serious side effects related to the treatment drug.

In another double-blind study, 22 elderly patients with central nervous system degenerative disorders were treated with vinpocetine or placebo. Patients received 10 mg of vinpocetine three times a day for 30 days, then 5 mg three times a day for 60 days. Another

18 elderly patients were given matching placebo tablets. Vinpocetine-treated patients scored consistently better in all evaluations on the tests noted above. According to CGI assessments, the severity of illness decreased in 73 percent of the patients in the vinpocetine group at day 30 and 77 percent at day 90, and improvement was seen in 77 percent and 87 percent of the patients at days 30 and 90, respectively. Patients also showed statistically significant improvement for all SCAG items but one, at days 30 and 90. The physician rated the improvement in 59 percent of the vinpocetine-treated patients as good to excellent. Again, there were no serious side effects.

The effect of vinpocetine on memory functions was studied in 50 patients with disturbances of cerebral circulation. Improvement of cerebral circulation was observed after intravenous and oral administration of vinpocetine. Blood flow was most markedly increased in the gray matter of the brain. Improvement of memory capacity evaluated by psychological tests was recorded after one month of vinpocetine treatment. Longer-term use was associated with alleviation or complete disappearance of symptoms of neurological deficit. No side effects attributable to the drug were observed. The doctors stated that vinpocetine is indicated in the treatment of ischemic disorders of cerebral circulation-that is, a deficiency of blood, usually due to a constriction or partial obstruction of a blood vessel-particularly in chronic vascular insufficiency.

Vinpocetine's safety and efficacy were demonstrated in a study of infants who suffered severe brain damage caused by birth trauma. Vinpocetine caused a significant reduction or disappearance of seizures, and the vinpocetine group also showed a decrease of intracranial hypertension and normalization of the psychomotor development.

In a study to ascertain how this compound boosts cognition in rats, vinpocetine produced a significant increase in the firing rate of neurons. The scientists noted that the dose of vinpocetine used to increase electrical firing corresponded to the dose range that produced memory- enhancing effects. These results provided direct electrophysiological evidence that vinpocetine increases the activity of ascending noradrenergic pathways, and that this effect may be related to the cognitive-enhancing characteristics of the compound.

Life Extension readers learned about the damaging effects of glutamate-induced excitotoxicity earlier this year. A vitamin B12 metabolite called methylcobalamin has been shown to specifically protect against this type of neuronal injury. Vinpocetine also has been documented to partially protect against excitotoxicity induced by a wide range of glutamate related neurotoxins.

The benefits of vinpocetine are not restricted to the brain. One study showed beneficial effects in protecting the retina against the hepatitis B virus. While hepatitis viruses primarily affect the liver, most people don't know that these viruses can also infect the heart muscle, retina and other parts of the body.

Another study showed that vinpocetine administered to rats inhibited the development of gastric lesions induced by ethanol, indicating its potential value for humans who drink to excess. And, in fact, vinpocetine is a popular drug used by alcoholics in Russia to recover from gastric and neurological ethanol-induced toxicity.

Space motion sickness has been a perplexing problem in both the Soviet/Russian and U.S. manned space programs. Both the sensory conflict theory (neuronal signal mismatch) and the cephalad fluid shift concept explain the mechanism. Whichever theory is correct, vinpocetine has been used successfully in offsetting space-motion sickness in experimental test subjects.

Vinpocetine used to be an expensive European drug, but is now available as a low-cost dietary supplement. Health people need only 15 mg a day of vinpocetine, the amount contained in the recommended daily dose of the new Cognitex formula. Those with neurological impairment should take 10 mg three times a day for 30 days, then reduce the dose to 5 mg three times a day.

Starting about the age of 30, we typically experience a progressive decline in cognitive function. By the time we're in our 60s or 70s, one can expect severe neurological impairment. The Foundation has sought out cerebral anti-aging compounds for two decades now, and has found several thousand scientific studies that show brain aging *can* be slowed, and impairment *can* be reversed.

The recent availability of supplements like vinpocetine, that used to be restricted, appear to mitigate many of the degenerative processes involved in brain aging.

Another European "Drug" To Boost Brain Function

Another compound, phosphatidylserine (PS), has been shown in more than two-dozen controlled clinical trials to improve learning and memory among older adults with cognitive deficits, as well as normal healthy persons with age-associated cognitive deficiencies. In 1988, the Foundation published an article showing that PS dramatically slows the rate of brain aging in animals. PS restored mental function in older animals to levels exceeding those in some younger animals.

Brain tissues are especially rich in PS, but aging causes a decline in cells throughout the body. The unique ability of PS to initiate, maintain, and enhance multiple aspects of brain-cell metabolism makes this lecithin extract one of the most promising anti-aging

therapies available.

PS also has been shown to help maintain brain cell-membrane integrity and youthful synaptic plasticity. This means that PS protects cells against the functional and structural deterioration that occurs with aging.

In Europe, PS is approved and sold as an expensive "drug" to treat Alzheimer's and other forms of senile dementia. Americans can buy PS as a dietary supplement for a fraction of the cost that Europeans pay. In a new book called *The Memory Cure*, new studies are reported showing a multitude of neurological benefits associated with phosphatidylserine supplementation.

Phosphatidylserine is available as a separate supplement, or in the Cognitex multi-nutrient formula.

Since then, Cognitex has been improved on a regular basis as newly discovered agents become available that are shown to improve memory, boost cognitive performance and slow some effects of brain aging.

Continuation of article:

A New Study Preventing Mental Incapacity with Hydergine

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