

The Moss Nutrition Digest

Timely Tidbits to Support Your Practice

February, 2023 - #36

Support for Memory & Attention Deficits: Phosphatidylserine

In the highly medicalized United States, close to 10% of all children have received a formal diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). As a result, many American kids are being treated with psychoactive medications from as young as six years of age. ADHD drugs may be necessary and even life-saving for many young patients. These medications also carry the potential for abuse, can produce undesirable side effects, and have unknown long-term implications.

Non-drug support for ADHD often begins with a low sugar natural food diet free from artificial colorings and highly processed foods. A functional medicine approach also incorporates targeted nutritional supplements researched to promote healthy brain and nervous system function.

The amino acid derivative phosphatidylserine (PS) is a substance that has been studied for its benefits to brain and cognitive health, including ADHD and memory. Phosphatidylserine contains phospholipids, present in all cell membranes, and exhibits a specific affinity for nerve cell membranes and brain myelin. To help boost its accumulation in neuronal membranes, phosphatidylserine is often taken in tandem with the omega-3 essential fatty acid DHA. Research suggests PS also may be highly effective on its own.

A randomized, double blind, placebo-controlled study published in the Journal of Human Nutrition and Dietetics examined the effect of phosphatidylserine supplements on short-term auditory memory, inattention and impulsivity in Japanese children and young teens with a psychiatric diagnosis of ADHD.

Forty youngsters between the ages of 4 and 14, none of whom had previously taken medication to address their ADHD, participated in the study. During the two-month intervention, subjects were randomized into two equal sized groups. One group received 200 mg of phosphatidylserine per day, the other took an identical appearing placebo. In all cases, the PS or placebo supplements were administered by the parents and well tolerated by the subjects, with no adverse events reported in either group.

Over the course of the intervention DSM-IV diagnostic criteria were used to assess inattention, hyperactivity and impulsivity via subjective interviews with the parents. Short-term auditory and working memory were evaluated using number repetition tests and the Wechsler Intelligence Scale for Children.

Significant improvements occurred in the youngsters taking phosphatidylserine, notably with respect to short-term auditory memory, and symptoms of both inattention and hyperactivity-impulsivity. Behavior both at school

(continued on reverse side)

Moss Nutrition Digest

Support for Memory & Attention Deficits: Phosphatidylserine, ctd.

and at home also improved in the PS group. No members of the placebo group experienced a reduction in ADHD symptom criteria nor any meaningful behavioral changes.

The study concluded that supplementation with 200 mg of PS daily for two months helped to significantly improve short-term auditory memory and ADHD symptoms in children.

Phosphatidylserine supplements also have been shown to improve memory in aging adults. A randomized, double-blind, placebo-controlled study of men and women aged 50 to 69 with symptoms of mild cognitive impairment examined the effect of phosphatidylserine on memory over six months. In this study, the effective dose was 100 mg three times per day for a total of 300 mg daily.

At the end of the intervention, subjects in the PS group showed significant improvements in memory scores, notably “delayed verbal recall” (searching for a word), while no improvements were observed in the placebo group. As with the study in children and young teens, no adverse events were reported in these adults. This study concluded that 300 mg per day of phosphatidylserine for six months improved memory and had a positive effect on cognitive performance in older patients with memory complaints.

REFERENCES

Hirayama S, Terasawa K et al. The effect of phosphatidylserine administration on memory and symptoms of attention-deficit hyperactivity disorder: a randomised, double-blind, placebo-controlled clinical trial. *J Hum Nutr Diet.* 2014 Apr;27 Suppl 2:284-91.

Kato-Kataoka A, Sakai M et al. Soybean-derived phosphatidylserine improves memory function of the elderly Japanese subjects with memory complaints. *J Clin Biochem Nutr.* 2010 Nov;47(3):246-55.

[Phosphatidylserine](#) from Moss Nutrition is provided in 100 mg capsules, allowing for flexible daily dosing. Our soy-free PS is derived from non-GMO sunflower lecithin, verified gluten-free and available in bottles of 90 vegetarian capsules.