

### **The Vitamin Treatment of Hyperactivity: a Safe and Ethical Way in Which to Treat Our Children**

Stimulant medication is considered the best option for children diagnosed with attention deficit hyperactivity disorder (ADHD). While there is ample evidence to support this option,, medicating this vulnerable group with mind-altering medication is not something that a highly industrialized society should embrace. The vitamin approach should be tried before stimulant medication, for it is a safer and more ethical way in which to “normalize” a child that is frequently manifesting symptoms of ADHD.

Vitamins are naturally found in the human body and facilitate improved behaviour and health while optimizing biochemical processes and physiology. Stimulant medication, by contrast, alters biochemistry and physiology, and produces a range of central nervous system toxicity that normally starts with increased energy, hyper-alertness, and over-focusing on rote activities, progressing to obsessive-compulsive or perseverative activities, insomnia, agitation, hypomania, mania, and sometimes seizures.<sup>1</sup> The side effects or toxicities associated with stimulant medication are commonly “misidentified” as being therapeutic or beneficial because they reduce social interactions, decrease responsiveness to parents and other children, increase solitary play and/or diminish play in general, increase compliance in formal settings, and negatively affect moods.<sup>1</sup>

From my review of data published decades ago, the vitamin approach might be able to normalize behaviour in some 20-68% of children given optimal amounts of vitamins.<sup>2-4</sup> The vitamin approach has the potential to spare a significant number of children that would otherwise be placed on stimulant medication. In a single-blind trial, Hoffer prescribed optimal doses (1,500-6,000 mg) of niacinamide (and rarely, niacin) in combination with vitamin C (3,000 mg) to children less than 13 years of age.<sup>2</sup> He followed a group of 37 children for 7 years.<sup>3</sup>

The results showed that 25 out of 37 children (68%) were normal or much improved by the addition of niacinamide or niacin. Hoffer also reported on a group of 110 children.<sup>3</sup> From this group he had baseline and final evaluation data for 84 children. He was able to demonstrate that 53 out of 84 (63%) were much improved or normal at final evaluation from an orthomolecular plan, primarily involving optimal doses of niacinamide (and rarely, niacin) in combination with dietary modifications, minerals, and ascorbic acid.

In two complex single-blind trials, Brenner prescribed optimal doses of single B vitamins (i.e., vitamins B<sub>1</sub>, B<sub>5</sub>, or B<sub>6</sub>) to 100 hyperactive children.<sup>4</sup> In the longer single-blind trial, children were followed for 4 years and 33% (20 out of 60 children) had sustained clinical responses from the long-term use of individual B vitamins, sometimes in combination with minerals. Thus, from the total group of 100 children that entered into Brenner's trials, 20% responded to vitamins (sometimes, in conjunction with minerals) in a manner that was considered equal to that of stimulant medication.

While this evidence is considered to be weak and low quality by today's standards, the results of these trials should not be disregarded. These trials were long-term (i.e., they followed children for 4 or more years in duration) and were longer than most randomized controlled trials conducted today. These trials were also single-blinded and consequently of higher quality than many modern case reports and case series.

I offer a brief case from my clinical practice to illustrate the types of improvements that are possible from optimal doses of vitamins without resorting to stimulant medication. Michelle, a 10-year-old girl, was formerly diagnosed with the inattentive type of ADHD and a learning disability while in grade 5.\* She was having a difficult time adjusting to a new school, exhibiting poor concentration and a less than stellar attitude about being there. She was not doing well academically, particularly in math. She had trouble taking notes during class and her penmanship was poor. Her parents were told that

she needed to be on stimulant medication, but they refused. They took matters into their own hands and read Abram Hoffer's book, *Healing Children's Attention & Behavior Disorders*. Each day Michelle was given 2,000 mg of niacinamide, 1,000 mg of vitamin C, and 200 mg of vitamin B<sub>6</sub>. Over the course of several months they and their daughter's teachers noticed huge improvements in her behaviour, attitude, and academic performance.

I saw Michelle in March 2011, when she was in grade 6 and age 11. I immediately increased her daily doses of niacinamide and vitamin C to 3,000 mg each. I also remarked on her excessive dairy consumption, since she was consuming lots of cheese and approximately 4 litres of milk each week. I told Michelle's parents to eliminate dairy until the next visit. I also ran transaminase levels and they were essentially normal and of no clinical concern.

At a follow-up visit in August 2011, Michelle showed continual improvements. She finished her academic year and did well in all her subjects. Her teachers did not report any behavioural or learning issues that were of concern. She also went to summer camp and remarked that she enjoyed it for the first time, being more sociable than previous years. From eliminating dairy, her sinus congestion cleared and her sleep improved. Prior to this, her sleep was fragmented and she had breathing difficulties due to sinus congestion. She was unwilling to stay off of dairy, so at some point before our follow-up, she did resume dairy for a number of weeks, and all the congestion and sleep issues recurred. This was educational for Michelle since she was now willing to refrain from consuming dairy products going forward. She was also enrolled into a 12-session learning program designed to improve concentration and focus through activities that strengthen balance, tactile ability, listening, visual tracking, spatial planning, and motor control.

At our most recent visit, in February 2012, Michelle was doing well overall. She was achieving grades of B's and B+'s. Michelle's only weak subject was language arts, but her parents were not that concerned. Her sleep was essentially normal as long as she re-

mained off dairy and vitamin B<sub>6</sub>. Her parents felt that vitamin B<sub>6</sub> aggravated her sleep issues. Michelle did stop niacinamide temporarily to see if it was actually helping even though her parents knew that it was. Upon discontinuation, she became angry, unfocussed, and defiant. When she resumed the niacinamide, all these symptoms normalized again. Since working with Michelle, I have requisitioned transaminase levels four times, and they have never been clinically concerning.

There is no doubt, having observed Michelle for some time now, that these marked changes are mostly the result of taking niacinamide in large quantities, in addition to the potential benefits from the learning program and dairy elimination. It is impossible to conceive that other factors would be responsible for Michelle's consistent success. To this end, I offer a passage from the late Abram Hoffer: "Since it is a general scientific rule that where one patient will respond to a particular treatment there must be others who will also do so, I suggest that physicians try treating hyperkinetic children with these vitamins which seem to be so effective in my hands."<sup>5</sup>



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\*Identifying information has been altered to protect the confidentiality of this patient.

## References

1. Breggin PR: Psychostimulants in the treatment of children diagnosed with ADHD: risks and mechanisms of action. *Int J Risk Safety Med*, 1999; 12: 3-25.
2. Hoffer A: Vitamin B<sub>3</sub> dependent child. *Schizophrenia*, 1971;3:107-113.
3. Hoffer A: *Healing Children's Attention & Behavior Disorders*. Toronto, ON. CCNM Press Inc. 2004; 208-221.
4. Brenner A: The effects of megadoses of selected B complex vitamins on children with hyperkinesis: controlled studies with long-term follow-up. *J Learn Disabil*, 1982; 15: 258-264.
5. Hoffer A: Treatment of hyperkinetic children with nicotinamide and pyridoxine. *Can Med Assoc J*, 1972; 107: 111-112.