

Foods and Attention Deficit Syndrome

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Bored in class, full of ideas and misunderstood, but a change in diet may be all that is required

In my experience, children diagnosed as having Attention Deficit Syndrome (ADS) commonly suffer from allergic conditions which add to the problems they have with concentration. Ritalin is commonly prescribed, but although this slows down the hyperactive state, it tends to impair intellectual capacity.^{1,2} This is unfortunate as both the hyperactive state and the allergies can often be remedied by identifying and avoiding the foods causing the symptoms of ADS. Moreover, the diagnosis of ADS may have a permanent psychological effect on hyperactive children. A great deal of anguish could be avoided by the simple expedient of finding the triggers.

Hyperactive children are always on the go. They are unable to concentrate, and their academic records are well below their capability. Some may be highly intelligent but are bored by what they view as the dull-witted manner in which the teacher explains the subject to their slower peers. Because they are bored in class, they occupy their minds by playing noughts and crosses or throwing paper balls or darts in the classroom. Their constant sniffing, coughing, mood changes, tantrums and requests to be excused (diarrhea or the need to urinate frequently are common symptoms) distract the attention of the class. Full of ideas, they are misunderstood by all – parents, teachers and friends. They may be the most timid children of their class, leaders or bullies.

Trial to investigate food allergies in patients with spastic colon

The belief that foods can have both physical and emotional effects was confirmed when I originally employed an elimination and rotation diet to identify foods causing symptoms of spastic colon in 130 patients. Besides bowel symptoms, I looked at all the patient's complaints, including those of the nose, chest, head, joints and skin, in addition to behavioural patterns such as insomnia, anxiety, feelings of inadequacy, poor self-image and lack of self-confidence. Among this group, more than 90% of the bowel symptoms and 70% of allergic and other symptoms were relieved, and to my surprise, so were psychological symptoms.³

Ashley for example, suffered from palpitations, colic, depression, sinusitis, chestiness, migraine and insomnia. Having no confidence in herself and a poor self-image, she enjoyed being alone and avoided looking at people. Her mind wandered and at times she experienced a feeling of being disconnected from reality and had a poor memory. She was not dress conscious and her hair was often untidy. Her mother, moreover, was continually being admitted to mental institutions. A sister and brother were undergoing

psychological counseling. Her eldest son had asthma, the second chronic diarrhea and the youngest threw tantrums. If he did not have his way, he knocked stacks of tins over at supermarkets, or pulled the tablecloth off, breaking the crockery.

On the elimination diet, all Ashley's physical symptoms cleared except her 'couldn't care' attitude. When she accompanied her children home from school, she noticed that the recently tarred road affected her, giving her a headache and creating a feeling of detachment and the 'couldn't care less' attitude. I then made a connection between the molten tar and smoke foods, her favourites, which appeared to be the cause of her behavioural symptoms. Her colic was triggered by bread and her fatigue by chocolates, on which she binged. Her son's tantrums were triggered by apples; he ate 3 to 4 a day. Once apples had been eliminated from his diet, his behaviour changed and he achieved better results at school.

Similarly, two autistic brothers' behaviour and mental ability improved on the elimination diet. The elder brother, aged 10, used to have bouts of laughing, combined with moving the furniture and throwing ornaments. When calm he was able to complete a 30-piece jigsaw puzzle. His younger brother was able to build a tower with 'Leggo' blocks when calm, but walked around the house grunting constantly when agitated. I have a video recording which shows how the elder brother completed the jigsaw puzzle and the younger erected a tower. They both concentrated on the work and were pleased with the result. Then, 10 minutes after exposure to a cola drink, they were given the same task. Within minutes the elder began laughing, threw the jigsaw pieces around the room, and moved the furniture. The younger child began his typical grunting noises and went outside to walk around the house. A lesser reaction occurred after they had eaten bread, but the greatest reaction came after the elder brother ate spinach, his favourite vegetable.

From my experience it is far better to identify the foods or inhalants that may trigger symptoms, rather than prescribe Ritalin

Penelope, a teenager in Grade Eight, had sinusitis, hated school and homework, and achieved poor results. She was unsociable and unfriendly and spent her days admiring and tending to seven pot plants in her bedroom. No foods were identified as causing her symptoms but removal of the pot plants solved her problems. Possibly the allergic trigger was a fungus or the plants themselves.

Another interesting case is that of a rabbi who suffered from sinusitis, migraines and irritability and had no energy or desire to preach. At times he felt out of touch with reality. Sinusitis and fatigue were relieved by avoiding bread, wheat products and milk, but the hopeless feeling remained even though it then occurred only on Saturday mornings. It puzzled me after that 2 weeks no other food allergy was identified and I could not understand what triggered the difference between the happiness of Friday night's meal and the hopelessness of Saturday morning. It then struck me that the inhalation of fumes from candles lit on Friday night, for ritual adherence, could be significant. The next Friday night olive oil candles were lit and this solved the problem.

Candles are made from crude oil extracted from the earth, which originally was vegetation that was buried by earthquakes millennia ago and became carbonized. Crude oil has the same molecules as diesel.⁴ Wheat (a grass) and milk (which is produced as a result of cows feeding on grass containing pollens) triggered his sinusitis and fatigue.

Food allergy and intellectual performance

I was given the opportunity to test the effect of food on the intellectual capacity of school-children boarding at Meerhof School for physically and mentally disabled children, Harbeespoort for 1 month.

The object of the trial was to identify foods that trigger symptoms, using an open food challenge, elimination and rotation diet, over 4 weeks. The group comprised 27 children, aged 10 – 16, in Grades Four to Seven. Parental consent was obtained for participation in the trial. A questionnaire recording the medical history and symptoms was completed for each child.

Two different intelligence quotient (IQ) tests, before and after the diet period, were conducted by the school's clinical psychologist. The diet was compiled by me with the co-operation of the chef, taking into account the likes and dislikes of each child. The behaviour of each child was recorded by the teachers. One or two different kinds of food were allowed at each meal. Only water was allowed during the first week and gradually tea, coffee and milk were added. Salt was allowed but no spices or sauces. Any food causing a reaction was replaced by another the next week and repeated for confirmation during the last week. The tuck shop was closed for the 4 weeks.

Results

Twenty-two of the 27 children completed an IQ test before and after the diet. The number of children with minor gains or losses, less than 4, of IQ grading was equal. Seven children showed an increase in their IQ by 4 – 15 points compared with only one child who had the biggest loss of 5 points. The increase of 49 IQ points in the seven children after the diet (compared to before) was significant ($p < 0.04$). Two learners, who had previously obtained 2 – 3 out of 10 for spelling recorded 10 out of 10. Hyperactivity diminished and attention span increased in the children, so much so that one teacher commented: 'It is surprising that such changes in scholastic performance and behaviour could be influenced by diet'. In addition, relief was obtained from physical symptoms.

The high incidence of allergy was relieved in 14 out of 17 children with asthma, 9 of 12 with sinusitis and 7 children with eczema, after the offending food was identified and avoided. Irritable bowel syndrome symptoms, such as nausea, flatulence, bloating, constipation, diarrhea, stomach pains and distension were relieved in 13 out of 15 children. One child, born without legs, who had suffered for years from severe diarrhea and soiled his pants occasionally, had totally normal stools after avoiding tomatoes. Bed wetting was relieved in 4 children. The foods involved were mainly milk products, beef

wheat, maize, potatoes, tomatoes, apples and oranges. The children were re-exposed to the offending food to confirm the reaction.

Discussion

The continual blocked nose, or cough with a tight chest and breathlessness with asthma, or the constant itch of eczema or the frequent need to be excused for diarrhea or to urinate, not only disturb the child's concentration, but the class's as well. The relief of these physical symptoms certainly helped to increase concentration, besides the effect the foods had had on mental acuity and behaviour. Hyperactivity is further aggravated by the effects of caffeine and caffeine-like substances in tea, coffee, chocolate, cola drinks and cocoa.³ Vanillic acid, the flavouring in foods such as cakes, chocolate, custard, ice creams and suckers is a more powerful stimulant of the sympathetic nervous systems than caffeine. It is these foods that lead to hyperactivity, especially in those with allergic symptoms.

Foods may suppress brain function, as seen after a heavy meal, inducing sleep. Foods which contain histamine, tyramine and prostaglandins⁴ stimulate the parasympathetic nervous system, and may cause headaches, bronchospasm, and increased bowel activity. Foods containing phenols, ethanol and acetaminophen,⁵ salicylates, benzoates and sulphites⁶ can depress brain function.

The high sugar content of sweets, chocolates, cakes and cold drink which may contain seven spoons of sugar per litre, may stimulate an excess insulin response, causing fatigue due to a continued low blood glucose level.⁷

Conclusion

From my experience it is far better to treat children diagnosed as having ADS by identifying foods or inhalants that may trigger their symptoms than to prescribe Ritalin. Ritalin may not only suppress the hyperactivity, but may decrease mental acuity.

References

A copy of the references can be obtained from the SAJNM office: Tel (021) 880 1444.