

**Biomedical Treatment of Autism:
Sound Medicine, or Dangerous Voodoo?
By David Kirby**

NEW YORK - Recently, reports have surfaced in the UK media about parents resorting to controversial and potentially risky alternative therapies to treat their children with autism. These reports have portrayed doctors who employ such methods as misguided naïfs, at best; and greedy, murderous charlatans, at worst

In the US mainstream media, meanwhile, doctors who practice this form of medicine might be greeted with some healthy skepticism, but rarely are they treated as objects of such scorn and ridicule.

In the most notorious American case, a physician in Virginia recently had charges dropped against him following the 2005 death of a young British boy named Abubakar Tariq Nadama. The child's parents had brought him to America for a series of treatments involving "chelation" therapy – the removal of heavy metals from the system through a variety of sulfur-based amino acids.

But Abubakar's doctor had mistakenly used the wrong chelating agent on the boy, sending him into cardiac arrest, for which the physician was charged with involuntary manslaughter, endangering the welfare of a child and reckless endangerment. (Though criminal charges were dropped, a civil case is still possible).

So why would this boy's parents move across the ocean to seek out a treatment not readily available in the UK?

Because, some doctors note, more evidence is surfacing to indicate that a significant portion of children with autism also suffer from a combination of physical ailments, ranging from inflamed nerves, to oxidative stress, to scrambled immune systems, to painful "leaky" guts that allow certain opiate-like chemicals to seep into their bloodstream and brains and, in effect, "dope" them into a stupor.

Many (though certainly not all) of these children with autism, to put it in the American vernacular, are sick as dogs. And more American doctors are now coming to understand that these patients require immediate biomedical attention.

There is an emerging opinion in the United States that environmental toxins – including heavy metals – are accumulating in the bodies and brains of at least some patients with autism. This accumulation seems to be caused by a lack of certain sulfur-based substances, called thiols, which comprise the body's natural defence against mercury, lead, arsenic, aluminium and other heavy toxic metals.

The accumulation of these toxic substances (and there is, of course, much controversy as to their origins, particularly as it relates to the mercury containing preservative thiomersal), has been associated in some studies with damage to the brain, nervous system, immune system, and GI tract. It might also lead to oxidative stress in the brain, as well as cognitive and behavioral deficits in certain genetically susceptible children, a growing number of researchers now believe.

In America, thousands of parents have been turning to an emerging medical protocol devised by doctors belonging to a group called Defeat Autism Now!, or DAN!.

DAN! doctors believe that some genetically susceptible children, with impaired abilities to metabolize and excrete heavy metals and other poisons, need help not only in detoxifying their young fragile systems, but also in repairing some of the metabolic, immune and nervous system damage this genetically induced toxic overload may have caused.

This is not voodoo medicine. The new president of the esteemed American Academy of Pediatrics (AAP) Dr. David Tayloe, told me personally that some biomedical interventions in autism look promising enough to warrant more research.

Earlier this year, leading officials from the AAP attended a DAN! medical conference, and these pediatricians continue to meet with DAN! doctors on a variety of alternative treatments for autism spectrum disorder.

There are many new and yes, still controversial autism treatments being tried in the United States. Among them:

CHELATION THERAPY

Chelation, from the Greek word “chele” or claw, refers to the ability of certain sulfur based proteins and amino acids to bind with, or grab, heavy metals and eliminate them from the system. Sulfur has a natural affinity for these metals.

It is believed that most (but not all) people have sufficient levels of sulfur-based proteins, called “thiols,” to provide protection from heavy metal accumulation and toxicity. A synonym for thiol is “mercaptan,” incidentally, from the Latin mercurium captans, or “grabbing mercury.”

Children with autism, however, tend to lack these “mercury grabbers” to protect them from the onslaught of heavy metals to which our modern world subjects them (ie, mercury in fish, air pollution, maternal dental amalgams and vaccines). That is why chelation is sometimes prescribed for them by DAN! doctors.

Chelation therapy was first devised by the British military in World War One, and further developed by the Americans in the next war, to remove metals like lead, mercury, arsenic and others that had accumulated in the bodies of soldiers and seamen.

Today, chelation is considered the standard of care in America for anyone presenting with abnormally high levels of heavy metals. It has long been approved by the US

Food and Drug Administration (FDA) as the treatment of choice for lead poisoning.

And though the therapy is not officially approved for mercury toxicity, chelation is nonetheless the typical treatment prescribed – in adults and children – for patients presenting with signs of mercury overexposure

Currently, the US National Institutes of Health (the leading medical research arm of the Federal Government) is considering a chelation clinical trial for autism.

Chelation therapy is not without its risk – or expenses. Most experts would agree that it is not to be entered into lightly. Strict doctor supervision is always required to ensure that beneficial minerals and vitamins lost in the process are properly replaced, among other things. (In the case of the young British boy who died, his doctor mistakenly used a chelator for removing calcium from heart patients, causing cardiac arrest).

METHYL B-12 THERAPY

Even if it is possible, and safe, to remove heavy metals from children with autism, what about the neurological and metabolic damage these toxins might already have caused? Is it possible to repair that apparent harm as well?

One researcher, Dr. Jill James, at the University of Arkansas, found that children with autism had low levels of thiols, especially glutathione, the sulfur based protein, and a major antioxidant.

Without adequate levels of glutathione, autistic children cannot excrete metals normally, Dr. James wrote in the American Journal of Clinical Nutrition. Toxins like mercury – regardless of their source - are then more able to impact the brain, kidney, and gut.

As for the potential benefits of vitamin methyl B-12, Dr. James provided metabolic evidence that ASD children have increased oxidative stress, due to low glutathione levels. She also reported that nutritional intervention with betaine, folic acid, and methyl B12 quickly normalized thiol levels in the autistic children.

How did this happen? James believes that this particular form of medical intervention can help “kick-start” an essential biological process called methylation – which seems to be impaired in some ASD kids, and which is also critical to fighting toxic build up and oxidative stress.

“Many more scientists with different types of expertise are becoming involved – indeed, it will take an army of scientists and clinicians to broaden the understanding of the etiology and treatment of autism,” James has said. “Now it is only a matter of time - the parents are not alone anymore.”

At least, not in America.

I have personally met thousands of parents who have related their own stories of clinical improvement in their children with ASD following intervention with

nutritional supplements such as methyl B-12, often in combination with chelation, dietary intervention and usually (but not always) behavioral therapy.

Indeed, there are many documented stories of children with autism who, following interventions such as chelation and Methyl B-12, have had their symptoms improve to the point of near obliteration. DAN! has documented many children who have had their autism diagnosis, and special services that come with it, happily taken away from them.

WHEAT AND DAIRY FREE DIET

Of all the alternative autism therapies, dietaries changes must certainly be the safest. And yet, they also remain controversial. Many parents and doctors report that the elimination of proteins from wheat and other grains, and from dairy products, can yield drastic improvements in the physical, and even cognitive symptoms of autism.

The intestines break down proteins into “peptides,” which are converted into basic amino acids. But many doctors now believe that peptides from gluten (in grain) and casein (in milk) “leak” through tiny holes in the intestines and into the bloodstream, rather than being absorbed through the GI tract.

These peptides act like morphine in the body. They can cross the blood-brain barrier, affect behavior and damage brain development, many doctors contend.

Dietary intervention is popular (though difficult in our pizza and crackers society) among a growing number of parents dealing with autism. One of the country’s most famous autism moms, Jenny McCarthy, says the diet has yielded remarkable progress in her own son.

It is not known for certain if vaccines are a source of the toxins and metabolic damage that is found in so many children with autism. But more research is showing that detoxification and metabolic repair may indeed offer sound alternative or complementary treatment for some autism patients

Rather than condemning those physicians who are willing to treat autism as a physical, as well as neuropsychological disorder, many leading experts are now asking if such unconventional therapies might legitimately have a place in the clinic after all

Information Provided:

* [Once autistic, parents believe son is now cured](#)

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