Chelation Therapy as a Treatment for Autism

Abstract

As medical advances continue to be made, there has yet to be an effective and consistent cure to the commonly known condition, autism. Some researchers and physicians state that by using chelation therapy, it could help cure autism effects occurring in autistic individuals who have been affected by vaccines or other sources. Because of the lack of research and knowledge of chelation therapy, there has been some controversy as to the ethics of providing chelation therapy to autistic children. The families that are put through these trials are put at high risks, and no guarantee that their child could be cured. But to some families, a little hope is better than none when thinking about the future of their child. Other families refuse to put their child through the therapy due to the effects it could have upon their child, and continue to wait for further advances in medicine.

Autism Increased Sharply in Several States

The prevalence of autism in 8-year-old children increased significantly in nine states — notably Arizona and Alabama — where the Autism and Developmental Disabilities Monitoring Network (ADDM) tracks autism spectrum disorder (ASD). Experts are uncertain whether the increases are due to a true increase in autism or other factors, such as more community awareness of the disorder and a heightened diagnosis standard.

Introduction

Ethical Question: Is using chelation therapy on autistic children unethical?

What is Autism?

As Glazer says, autism is a condition in which the individual has an impaired ability to relate to other people, repetitive behaviors and delays in language. "Ritualistic behavior, hand flapping, oversensitivity (or under-sensitivity) to pain and self-abusive behaviors (like head-banging) are also common" among individuals diagnosed with autism. Many of the first signs of autism begin at birth. Some of the more common symptoms include "FAILING to make eye contact or react with the smiles and gestures that are the foundation of human interaction." It is also not uncommon, however, for signs of autism to start to show when the child is about two years of age. Since signs start to show after a period of what seemed to be a normal development in the child, the cause of autism is blamed on the vaccinations given during this time. Brain scans illustrate that children, as well as adults, diagnosed with autism have brains that are structured and functioning in a different way from brains of non-autistic individuals. Recent hypotheses have shown that the brains of autistic individuals are in fact larger than non-autistic individuals. Studies also show unique growth patterns and density packed cells in the limbic system of the brain. The limbic system is involved with "learning, memory, emotion and behavior." This is a reason as to why autistic individuals have difficulties when it comes to social interaction, but they are able to become experts on other subjects. For instance, Temple Grandin, author of Thinking in Pictures, "has built a distinguished career as an animal scientist" (Glazer).

What is Chelation Therapy?

Chelation therapy is a process in which a chemical substance binds to "molecules of metals or minerals so they can be removed from the body." This type of therapy was first used to remove lead poisoning in the 1950s. When young agents can be administered either by an IV or orally. Some of the more common agents are dimercaprol (DMSA), 2,3-dimercaptopropanoic acid (DMPS) and alpha-lipoic acid (ALA). Chelation therapy is used to help patients on the basis of controversial theories that "mercury poisoning from vaccines or other sources" actually causes autism — and thus the "removal of mercury will improve symptoms or actually cure autism" (Rudy).

Some possible sources of high levels of mercury and heavy metals are vaccines, chinatown, Asia, and essential trace elements that are needed minerals, such as calcium and iron, when there are no heavy metals present (Hogg). Another reason some are opposed to chelation therapy is because of the "one cardinal rule of human subjects research enshrined in the Common Rule, which govern all federally funded human subjects research, is that vulnerable populations must be protected by an additional level of ethical constraints" (Orac). Vulnerable populations can refer to prisoners, the mentally disabled, and children. Individuals who are considered to be mentally disabled are usually able to make decisions giving consent for treatment. Children, on the other hand, are not legally able to give consent for treatment or research (Orac).

Discussion

The Pros of Chelation Therapy

Research studies at Cornell University published in an issue of Environmental Health Perspectives showed that chelation therapy, in fact, can reduce behavioral problems as well as learning problems that result from exposure to lead (Hogg). In the past, many physicians had also reported positive results in improving the behavior of autistic children after the children had undergone a chelation process to rid them of mercury. After seeing these results, the Autism Research Institute (ARI) responded by holding a "Consensus Conference on the Datification of Autistic Children in Dallas, Texas. February 9th through 11th, 2001" (ARI). The conference consisted of 25 physicians and scientists with an understanding of mercury and the detoxification of mercury. Several of the physicians were parents of autistic children. These physicians had also carried out the process of detoxification of mercury on their children and had positive results. Along with the children of these seven physicians, these physicians had also used chelation therapy on over 3,000 patients. Approximately 1,500 of the 3,000 patients had been diagnosed with autism (ARI).

The Cons of Chelation Therapy

Although some studies have shown to help treat autistic behaviors, there are many risks that have been associated with chelation therapy. Chelation therapy has been described to be "dangerously misleading" (Vogel E756). Back in October of 2010, the United States Food and Drug Administration warned several companies selling over-the-counter chelation therapy treatments to stop marketing the products. This FDA said that there is no proof or guarantee that the chelation therapy being marketed by these companies would cure conditions, such as autism, different heart diseases, Parkinson's disease, or even Alzheimer's disease. Chelation therapy also comes with possible risks and side effects, such as dehydration, kidney failure and death (Vogel E756).

Furthermore, the reason why it is strongly recommended patients get tested and monitored by a doctor for the amount of heavy metals in the body is because chelation therapy can actually cause symptoms of heavy metal poisoning if there are no high levels of heavy metals in the body to begin with. Chelation therapy can actually strip the body of its necessary minerals, such as calcium and iron, when there are no heavy metals present (Hogg). Another reason some are opposed to chelation therapy is because of the "one cardinal rule of human subjects research enshrined in the Common Rule, which govern all federally funded human subjects research, is that vulnerable populations must be protected by an additional level of ethical constraints" (Orac). Vulnerable populations can refer to prisoners, the mentally disabled, and children. Individuals who are considered to be mentally disabled are usually able to make decisions giving consent for treatment. Children, on the other hand, are not legally able to give consent for treatment or research (Orac).

Conclusion

Although chelation therapy does have its risks, some individuals may still take their chances and continue on with the treatment. If one is planning on administering chelation therapy for his or her autistic child, it is extremely important that they take all precautions. One should go see a physician to take tests that check for the amount of heavy metals in the body before even deciding to carry out the chelation therapy. It is also recommended that the levels of vital minerals in the body are monitored during as well as after the duration of the chelation treatment (Hogg). Some may continue to promote and say that chelation therapy is unethical, but most likely will not stop some parents from carrying on the treatment in hopes of curing their children from autism.

Bibliography