

Lethal Fraud: Chelation therapy

By David N. Brown

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Probably the most heavily promoted “cure” for autism is chelation therapy, the injection of chemicals which remove mercury and other metals from the body. It is also the most completely discredited. The suggestion that autism was caused by thimerosal has long since been refuted. Even the suggestion that autism is similar to mercury poisoning has been easily discounted. Finally, even if autism were caused by mercury, the claims made for chelation as a “cure” would still not be justified. (See I.1.) But the complete lack of merit for chelation is not what will concern me here. What I find more interesting is the way in which chelation therapy for autism is an extension of earlier frauds, and how these preexisting frauds engineered the circumstances of the infamous death of Tariq Nadama.

I. “Base line”: Appropriate usage of chelation therapy

Chelation therapy is indisputably useful in the treatment of heavy metal poisoning, and professionals have produced ample data on when and how to use it. Based on this literature, several especially significant points are evident:

1. *Chelation is preventive, not curative, of heavy metal poisoning.* Immediate application of chelation therapy after the ingestion of a dangerous dose of mercury can remove the mercury before long-term harm is done. (In theory, it could also reverse an accumulation of mercury that might otherwise reach a harmful level.) But, just as removal of the bullet cannot heal a gunshot wound and a vaccine cannot cure an existing infection, so chelation cannot reverse existing damage from long-term metal poisoning. This is why **chelation could not cure autism even if autism were caused by mercury.**
2. *Chelation should not be administered without a diagnosis of heavy metal poisoning.* When administered to animals without genuinely dangerous levels of heavy metal, chelating agents are known to produce the same long-term harm as the metals they are intended to remove.
3. *Diagnosis is best made through blood tests.* Levels of 200 micrograms (ug)/liter are sufficient for a diagnosis of poisoning. 600 ug/liter are necessary for a similar diagnosis by a urine test.
4. *Disodium EDTA should not be used.* This particular agent depletes calcium (hypocalcemia) which may lead to cardiac arrest.
5. *Chelating agents should be administered in a 2% solution.*
6. *Only a few treatments are necessary.* A comment at Left Brain/ Right Brain blog reports *three or four* treatments in the case of a family member treated for mercury poisoning.

II. Roots of Chelation Therapy

Interestingly, the questionable use of chelation therapy was a concern well before it became in vogue for autism in particular. In 1989, an FDA publication listed chelation as one of the “Top Ten health frauds”. During this early period, it appears that chelation had already acquired several characteristics

typical of fraud:

1. It was proposed to treat a wide variety of health problems. These included atherosclerosis, coronary heart disease, gangrene, diabetic ulcers, arthritis, multiple sclerosis, and even impotence. It is grounds for further suspicion that many conditions referred to a) fall into separate categories, b) have multiple, unknown or disputed causes, c) are vaguely defined and/or d) may have a strong psychosomatic component (see esp. “sexual potency”!)
2. Multiple theories were proposed to explain its effectiveness. In the argued use for atherosclerosis, four successive theories were put forward over the course of several decades to explain why chelation would be effective against the condition. Of course, this meant that, to the best of their own ability, discussion was diverted from whether it worked.
3. Patients were diagnosed according to urine tests administered after chelation. This amounts to what I call an “equivocal test”, meaning that *it can support a given conclusion most or all of the time*. The archetypal example is the interrogation methods of the historic witch-hunters, whose ability to extract confessions strained even contemporary credulity. A definitive (and especially cruel) modern example is Cecil Jacobson, a fertility specialist who gave women hormone injections whose only actual effect was to cause false positives on pregnancy tests. Fraudulent chelation therapists are well-known for “proving” their services are necessary by methods approximately the same as Jacobson's: They give the client (aka sucker) a chelating agent, which can be expected to increase urine mercury by at least an order of magnitude, test the urine for heavy metals, and diagnose “poisoning” by inappropriate comparison of that figure with a “reference range” of unchelated urine. They may also give “ideal” figures that would be unrealistic even for unchelated urine. For example, an organization called the Center for Advanced Medicine and Anti-Aging list “acceptable” urine mercury as simply “0”. (They also report a “high” of 1000 ug/L concentration from challenge testing, which, allowing for the effects of chelation (also see I.3) is 1/6th of what it would really take for a diagnosis of poisoning!) Remarkably, their methods do NOT produce 100% positive results. In a significant number of cases, there is no response to chelation, or at least not enough. The frauds' standard response is to cite this as evidence that some abnormality is preventing the excretion of metal. In the end, as Stephen Barrett remarks, “no matter what the test shows, they still recommend chelation.” In fairness, some chelation therapy advocates, such as Elmer Cranton, have openly condemned “challenge testing” practices.
4. Physicians made knowingly false reports. According to insurance companies, chelation therapists have long been making reports of heavy metal poisoning to make their treatments appear to qualify for coverage. Even for those who may sincerely believe in their diagnoses, this is deception by omission at best, as they would undoubtedly be aware that their tests and any resulting diagnosis, if known in full, would not be accepted as valid
5. Inappropriate methods were established. A 1989 American College for the Advancement of Medicine protocol for “the safe and effective administration of EDTA chelation therapy” set an “official” standard strikingly at variance with “orthodox” procedure: “The protocol calls for *intravenous infusion of 500 to 1,000 ml of a solution containing 50 mg of disodium EDTA per kilogram of body weight...* This solution is infused slowly over 3.5 to 4 hours, *one to three times a week*. The initial recommendation is about *30 such treatments*, with the possibility of additional ones later.” (Summary by Stephen Barrett, italics added.) It is especially noteworthy that the protocol recommends disodium EDTA, and would prescribe 1 g of it in a 50% solution for a single treatment of a 20 kg individual. (See III.)

6. Numerous harmful side effects were recorded. Even champions of chelation therapy openly reported serious complications, particularly hypocalcemia and resulting heart failure. Other noted effects include kidney damage, decreased blood clotting, hypoglycemia, insulin shock; eczema, and abnormal platelet clumping of some patients with atherosclerosis. Note that, while it was recommended for treating diabetes and atherosclerosis, some specific side effects would *worsen* these conditions! Of course, it is doubtful that many practitioners went through this with “patients”.

It is clear that, long before the vaccine-autism scare directed parents of the autistic their way, chelation was already well established as a cottage industry of outright con men. The major characteristics of practitioners were reliance on pseudoscience, probable lack of competence, intentional deception, and complete disregard for their patients' well-being. Once a mercury-autism link was proposed, it was probably inevitable that chelation would enter the realm of autism “cures”. It was no less inevitable that someone would pay the highest price.

III. The death of Tariq Nadama

The event which should have destroyed all confidence or interest in chelation for autism happened in August 2005, with the death of Tariq Nadama. I will not dwell on rehashing many details, but I will draw attention to what I believe is a full explanation of Roy Kerry's conduct. Consider the following statements (with underlining added) compared to :

Nadama family's complaint to Mercer County Court of Common Pleas: “The aforesaid death of Tariq Nadama was caused by the negligence of Roy Kerry in the following particulars... in administering the wrong type of EDTA (chelating agent)... in an excessive dosage and concentration... In ordering the administration of EDTA via IV push when he knew or should have known that said method of administration was too fast... In administering the EDTA too frequently and with insufficient time between administrations...”

Notes by Roy Kerry: “She (Defeat Autism Now member Dr. Usman) recommends 50mg per kilo. He is 42 pounds today. So we'll treat him with a 20-kilo child and give 1 gram of EDTA. We diluted it 1:1 with saline. Started the IV with saline.”

From these diverse statements, three conclusions are unavoidable. First, Kerry not only used an inappropriate procedure, but a procedure which was *inappropriate in every possible way*. He administered an agent known to be dangerous, at more than 25 times the recommended concentration. Second, he did so not in error *per se*, but as a matter of conscious choice. In particular, investigators established that disodium EDTA was the only chelator he even stocked. Third and worst, he modeled his procedure closely on what advocates of chelation therapy had much earlier established as “protocol”. (Ironically, the most obvious variation from ACAM protocol is that Nadama received three treatments about two weeks apart, still argued to be too many and too fast, where the protocol would have allowed for him to deliver ten times that number at the rate of three a week!) If he had faced trial, he could have perfectly honestly given the Nuremberg defense: *He was only following orders*. The Nadamas' complaint conceded the point, after a fashion, by implicating the supplier of Kerry's chelation agent, ApotheCure, Inc. as codefendant. A significant allegation was that “Dr. Kerry's and Dr. Lewis's knowledge and understanding of the appropriate or inappropriate use of EDTA was formed in large measure by information he received from ApotheCure.” Unfortunately and inexplicably, ApotheCure has stayed in business, and at least one of their products has caused more deaths.

Let us not mince words. The supposed autism-mercury link is so spurious it could satisfy the definition of fraud. But chelation, which that myth has furnished with lucrative business, is much, much worse. It is an industry dominated by entrenched fraud, whose members should not be trusted under any circumstances. This industry not only performed and promoted the useless “therapy” that killed Tariq Nadama. It directly and collectively created the specific circumstances of his death, by enshrining the “errors” that would kill him as protocol, quite conceivably for no other reason than to sell as many “treatments” as possible. Everyone involved has blood on their hands, and will claim more lives if given the opportunity. The only way to stop them is to exact the blood price. This is what must be done:

“Doctors” who promote chelation therapy for autism must be systematically and unrelentingly pursued by legal and professional bodies and by malpractice litigation until they have *at a minimum* been barred from practicing medicine in any capacity. ApotheCure and all other manufacturers of chelation agents who knowingly sell to or (especially) encourage those who practice inappropriate applications and procedures should be systematically and unrelentingly undermined through boycott, litigation, regulation, criminal prosecution, and if necessary civil disobedience until they have ceased to exist as functional corporations. For its role in the Nadama case, DAN should be systemically renounced by all responsible autism organizations, and furthermore censored in autism-related or general media, at least until its representatives retract all support for chelation therapy as an autism treatment. Similar steps should be taken against all other groups that continue to advocate chelation for autistic children. One death is already too many.

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