

Literature Review and Comparison Studies of Sauna/Hyperthermia in Detoxification: Part III by Zane R. Gard, MD, and Erma J. Brown, BSN, PhD

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Case Reports: Bio-Toxic Reduction Program

Other improved abilities not normally considered "medical improvements" that were observed in this study of program participants included the following: ability to think more clearly, improved sense of smell or taste, increase in general awareness, and increased energy levels. It was not unusual for participants to re-experience physical or mental symptoms during the dry-sauna therapy, reflecting prior drug use or old injuries, only to find these diminish anywhere from a few minutes to a few days after the "manifestation" was triggered while detoxifying. For instance, some individuals began to exude odors similar to that of a previous pesticide exposure or may have experienced a "trip," accompanied by hallucinations due to prior LSD use. Others experienced changes associated with past use of anesthetics, while still others noticed redness along surgical scars. These "manifestations" suggest inherent cell memory recall and signify the release of stored toxins. The symptoms are usually less severe than the initial exposure or event, depending upon the rate of excretion.

Of particular interest, a study involving a paraplegic who had participated in the Bio-Toxic Reduction program. She had been wheelchair-bound for 17 years, and symptoms were felt to be consistent with transverse myelitis. An increased sensation was noted in the legs, as well as a gradual increase in voluntary control during the program. Six months after the sauna program was completed, the patient continued to have mild increases of voluntary control of her lower legs. Though still wheelchair-bound, she now transfers with greater ease. Continued muscle growth was evident upon her last examination.

Some researchers believe that the effects of radiation are cumulative and irreversible, contending that each exposure has the potential of causing some type of permanent damage. There is also evidence indicating that no human threshold of radiation damage actually exists. It has been shown, however, that biological repair mechanisms may reverse some of the disruptive effects of various mutagens, such as radiation. Clinical studies of the dry sauna detox therapy have also indicated recovery from the effects of radiation burn following treatment.

In 1973, Dr. David Schnare, policy analyst for the US Environmental Protection Agency, took part in a study of Michigan residents who had been exposed to a fire-retardant, PBB, when it was mistakenly used in place of a nutritional supplement for farm animals. The contamination of meat, milk, and a variety of other foods resulted in the consumption of this chemical by nearly the entire population of Michigan, which also may have involved residents in many surrounding areas as well. As previously discussed, tests performed on a sample population revealed six metabolized variants of PBB and seven of PCB, as well as DDE (metabolite of DDT). Participants of the BioToxic reduction program, poisoned by this tragic accident, showed an average immediate reduction in 20% of all 16 chemicals studied, immediately following the detoxification program described, and more than a 40% reduction after a four-month follow-up examination.

Peripheral Neuropathy & Multiple Sclerosis

Another excellent paper on the need and importance of detoxification was presented to the Society of Toxicology on February 16, 1990, at Miami Beach, Florida, and was titled: Clinical Case Study of Fifty Patients Diagnosed With Peripheral Neuropathy and/or MS Secondary to Chemical Exposure.

Multiple sclerosis is the most common degenerative inflammatory neurological disease to strike working individuals between the ages of 15-55 years. In 1968, almost 100 years after Charcot had first described the condition (1874), a magazine writer summarized contemporary understanding of multiple sclerosis (MS) as "one of medicine's strangest enigmas, with unknown cause, an unexplained geographic distribution, an unpredictable course and an undiscovered cure."

In the literature we found many reports of cases in which the onset of multiple sclerosis appeared to be precipitated by widely differing conditions: Trauma, diet, pregnancy, emotional stress, exertion and fatigue, changes in temperature, tobacco, urban-rural, geographic and climatic aspects, heavy metals, dental caries, Organophosphates, and organic solvents.

In the United States, there appears to be a concentration of MS North of the 37th parallel latitude, which coincides with geographic areas relying heavily upon petroleum products. This correlates throughout the world, except in an area of Florida and in some South sea islands. This strange exception is thought to be due to the high use of pesticides. A higher incidence is found in cities where there is a greater amount of automobile exhaust which could arise from the stream of metallic lead spewed out in the traffic lanes of this nation's highways. Also, we must consider the higher incidence occurring in the wheat belt and the fruit-growing and dairy-farming industries. Their practices with respect to mercurial dusts and sprays, lead-arsenate, and management of livestock afflicted with parasites may be in question.

An extensive literature search coupled with clinical observations within the past five years, indicates a strong correlation between the appearance of inflammatory disease of the central nervous system and exposure to organic solvents. It has long been established that solvents absorbed in large quantities, in part, accumulate in the central nervous system. Some studies on the relationship between solvents and immunity have considered a hyperplasia of the reticular endothelia system responsible for autoimmune processes. It has been postulated that solvents may act on cellular membranes. It is also documented that many chemicals directly injure the central and peripheral nervous system (for example, Organophosphates). It is also noted that skeletal muscle disease can be caused secondary to chemical exposure. Documentation also indicates that chemicals can induce autoimmunity. Research lends further support to the concept that avoiding further toxic exposure, detoxification, and modulating the immune system, in effect, modulates the course of MS. In Corsarett & Dovllis Toxicology – The Basic Science of Poisons, 1984, 3rd Ed., "Toxic Modifications of the Immune System" by Jack H. Dean et al., the immune system functions in resistance to infectious agents, homeostasis of leukocyte maturation, immunoglobulin production and immune surveillance against arising neoplastic cells. The interaction of environmental chemicals or drugs with these cells may alter the delicate balance of the immune system and result in four types of undesirable effects: 1) immunosuppression; 2) uncontrolled proliferation of leukocytes (i.e., leukemia & lymphoma); 3) alterations of host defense mechanisms against pathogens; 4) allergy or autoimmunity.

Over 50 patients with peripheral neuropathy were evaluated in the BioToxic Reduction clinic. Each of these patients experienced either a total remission or marked improvement of their symptoms, following treatment with hyperthermic detoxification. Each patient presented a history of chemical exposure, either to aromatic or volatile hydrocarbons in the home or workplace, or allergic response to repeated exposure to Sodium Pentothal. Two cases reported chronic neuropathy following anesthesia, which cleared several years later. Six of the 50 cases studied follow:

A 46-year-old female patient (Case #21) with a demyelinating process of the central nervous system developed peripheral neuropathy with some loss of fine-motor skill 23 years earlier as a result of a reaction to sodium pentothal. A form of paresthesia remained for over eight years. A year before her visit, she was again given sodium pentothal and lost the use of her fingers; she was unable to write, comb her hair, button a blouse, or play the piano. Within one week of therapy, she could write and dress herself. Upon program completion, she was able to play the piano again. The persistent glove-like paresthesia gradually subsided. Her grip changed from 0 to 65 lbs. on the right; from 0 to 50 lbs. on the left. She has been asymptomatic since she completed the second therapy program in 1986. We have successfully treated two other sodium pentothal cases.

A 40-year-old female (Case #17) exhibited neuropathologic symptoms after her house had been tented and treated with methyl bromide and chlordane (five years earlier). She suffered from multiple chemical sensitivities, extreme fatigue, muscle aching and cramping, twitching, numbness of hands and feet, and on occasion, episodes of total paralysis. In spite of various therapies, her condition continued to progress. She was placed on the BTR Program, and over the next 60 days, her seizure-like activity and neuropathy became more pronounced and had to be mediated through temporary discontinuation of the program. Temporary paralysis (caused by the release of toxins) during the program required the use of a wheelchair to transport her in and out of the thermal chamber. She was fully conscious, but at times was unable to speak until the toxins cleared her system. Despite the difficulties encountered in therapy, remarkable progress was made, and her symptoms cleared, allowing her to return to her home. She would come back to Detox whenever her symptoms began to recur. Laboratory studies suggested that she was being re-exposed. The source of her re-exposure was found to be toxins in the tap water. A filtration system was applied to the entire home, even though she drank only filtered water. She has remained free of neuropathy since last completing the program. She has remained symptom-free and traveled abroad by herself in 1986. She has now resumed an active teaching career.

A 53-year-old female (Case #69) was seen in 1987 with an eight-year history of progressing peripheral neuropathy. Her history revealed she had worked where volatile hydrocarbons were used for cleaning parts. She was forced to quit working in 1983 due to C.N.S. Depression and peripheral neuropathy with extreme weakness of her right leg. She had numerous evaluations and was finally treated with allergy-type therapy, however her disease continued to progress. When examined, she had a moderate bilateral foot drop and was unable to raise either foot more than a few inches off the floor. Her grip was 0 on the right and 20 lbs. on the left, and she was unable to stand on her right foot with her eyes closed. Her Weber was to the left. After therapy, her grip was 50 lbs. on the right and 45 on the left with her coordination being normal again. She was able to stand on her toes and lift either foot to the chest level. Against medical advice, she returned to a mobile home where solvents were being used outside working on equipment and where 55 gallons of diesel had been spilled. Her condition began to deteriorate with all the symptoms returning. This is a good example of the danger of continued re-exposure of a patient to chemicals to which they are hypersensitive.

A 41-year-old male (Case #63) Vietnam veteran was diagnosed by three neurologists as having MS, however, the last neurologist felt his condition was not MS, but was due to a complication of a neurological disorder resulting from frequent exposure to Agent Orange and DDT from July 1969 through October of 1970. His first symptoms started in 1980 and consisted of a lack of coordination while walking. Next, he noted tingling and numbness of his feet and hands and occasional difficulty swallowing. By 1984, he had numerous symptoms including CNS Depression and paresthesia.

At the time of his first visit, he was confined to a wheelchair with inability to lift his right leg while sitting or to move the leg back and forth if supported. No toe movement was noted on either foot. After approximately ten days on therapy, he was able to move his right leg forward and backward as well as elevate and flex his toes. He was unable to get into and out of the thermal chamber without assistance before the first course of treatment. His second session of therapy gave him a more positive attitude, and he was able to walk for a short distance with a cane.

A second patient had been restricted to a wheelchair for about two years. Careful review of her history failed to reveal any known exposure history, and her laboratory evaluation was basically normal. Numerous consultations were also basically unable to determine the etiology or proper diagnosis of her condition and it was felt her diagnosis was peripheral neuropathy of unknown etiology. After completing two series of hyperthermic detoxification therapy as well as ancillary rehabilitation therapy, she is able to walk at times without assistance from her attendant and is learning how to swim and drive her own car. Though she still has some ambulatory difficulty, her condition has significantly improved.

Systemic Lupus Erythematosus

Many of the patients evaluated and treated with the Bio-Toxic Reduction Program meet the 1982 Criteria for Diagnosis of Systemic Lupus Erythematosus, according to Dr. Zane R. Gard, who presented Drug and Chemically Induced Lupus-Like Syndrome to the American Lupus Foundation in January 1988 in Los Angeles, California. This review of 12 Lupus-like patients indicated that certain susceptible populations may develop Lupus-like conditions as a result of deficiencies within the body's own detoxification mechanisms following excessive drug or chemical ingestion or exposure. This impairment causes an untimely elimination of toxic substances rendering the body susceptible to chronic diseases such as Lupus. These patients were all treated with the Bio-Toxic Reduction Program and all abnormal immunological profiles returned to normal limits as well as none meeting the Criteria for diagnosis of Lupus. Only three of these patients have had continuing health problems primarily consisting of chemical sensitivity, however, all but one have had normal immunological profiles. The worst of the group had been on steroids therapy for over 17 years, and as long as she avoids chemicals to which she is sensitive, she doesn't require steroid therapy. She has had full use of her hands (which were claw-like) since her therapy seven years ago. Only when she is overburdened will immunological tests be abnormal. When this occurs, she also has a mild Lupus flare with joint stiffness and swelling.

Her history is as follows: this 32-year-old female was diagnosed having Systemic Lupus Erythematosus (SLE) at the age of 15. Over eleven surgeries had been performed, including a sinovectomy of the hand, an appendectomy, and a splenectomy. She had been plagued with health problems, which included chemical sensitivity, pain and swelling of her joints (which resulted in restricted use), sinusitis, nosebleeds, headaches, ear infections, and fatigue. By the time she came to BioTox, her condition had deteriorated considerably. She suffered from muscle weakness and spasms, blurred vision, depression, mood swings, and had been previously diagnosed as having Sjogren's syndrome, myofascial syndrome, hypertension, and latent tetany.

A fat-biopsy revealed elevated levels of chlorinated pesticides and she was placed on the BTR Program. Her headaches soon disappeared, but her joint pain would flare, then subside during sauna sessions. After 30 days in BTR, she began to hallucinate as a response to the release of fat-stored anesthetics, accompanied by a distinct anesthetic odor. The hallucinations were usually followed by a response similar to that of a patient in a recovery room. She frequently needed assistance both in and out of the sauna. In addition to very close monitoring of her condition to prevent injury, oxygen with special mask was frequently used.

Upon completion of the BTR program, 100% range of motion returned to all of her joints, with no inflammation or soreness. The myofascial syndrome had cleared, along with the headaches, fatigue, and depression. While she still has multiple chemical sensitivities and allergies, the BTR Program has resulted in a 90% improvement of her lupus condition, without the use of medication. She continues to use sauna therapy following exposure to prevent the symptoms of SLE. She has enjoyed a near-normal life since 1984. Her brother also has lupus and originally was in better health than his sister. Now she feels she is 100% better than her brother who is on conventional therapy. She now feels she is 50% improved, however, she is not careful about avoiding exposures to chemicals to which she is sensitive.

The following is a random sample of follow-up questionnaires to disabled patients one to seven years after their therapy was completed:

This 56-year-old female school counselor (Case #27) came to the clinic with severe arthritis in her left knee. At the time of her initial evaluation, she had been scheduled for a surgical knee replacement, recommended by her previous physician. Her health began to deteriorate after the school had been remodeled. Nine out of 12 teachers at this school also developed serious health problems. The school was also located near a dumpsite, which contributed to the "toxic overload." Serum blood analysis for volatile hydrocarbons revealed high levels. She also tested positive to formaldehyde and isocyanate antibodies.

After the first day on the BTR Program, her arthritic symptoms began to ease, and she could ride the stationary bike with little difficulty. She spent 21 days on the program, and within three weeks of completion, she experienced a full range of motion and freedom from pain. She no longer required medication or surgery. Serum chemical analysis showed drastic reductions in stored toxin levels within 21 days. She was able to return to work in a contaminated school building, however, she has had some problems since.

This 32-year-old female (Case #86) began reacting to many chemical odors shortly after moving into a newly renovated office building and became acutely ill by the third week. She had previously developed a sensitivity to copy machine fumes, which she had been able to manage until the remodeling. Because of her previous chemical sensitivity, the fumes from the new wallpaper and carpeting caused her to have difficulty breathing, shortness of breath, vertigo, headaches, and extreme fatigue. When she came to BioTox, her symptoms had become so severe that she was in a wheelchair and was on oxygen therapy, in addition to taking 75 mg. of prednisone per day, with decreased effectiveness almost daily. A serum chemical analysis revealed elevated levels of volatile hydrocarbons.

Further laboratory analysis revealed antibodies to formaldehyde and trimellitic anhydride, both common constituents in "sick buildings." The BTR Program was prescribed, and her elevated volatile hydrocarbon levels were lowered drastically.

This 25-year-old female (Case #23) suffered from CNS depression, anxiety, excessive crying, headaches, confusion, excessive fatigue, and multiple chemical sensitivities. She reported that her symptoms began five to six years earlier after being on birth control pills for two months. Her symptoms gradually became more severe after the office where she worked had refinishing work done on some cabinets. The lacquer fumes made her ill, and she began experiencing debilitating fatigue along with an intensification of her chemical sensitivities, headaches, and depression. Blood tests and medical evaluation indicated she suffered from Chronic Fatigue Syndrome, Leukopenia (very low white blood count), elevated volatile hydrocarbon levels, and antibody/immune sensitivity to formaldehyde, isocyanates, and trimellitic anhydride. She made a remarkable recovery following treatment. Her energy level dramatically increased. Serum chemical analysis indicated an elimination of most of the volatile hydrocarbon levels. Her health is returning. She was able to return to work and continue living a normal lifestyle.

This 30-year-old female (Case #2) was evaluated for multiple chemical sensitivities. Chief complaints included headaches, musculo-skeletal pain, asthma, depression, poor memory retention, fatigue, numbness of the extremities, anxiety states, eye/head pressure, and chronic flu-like symptoms. At the time of evaluation, the patient was essentially confined to a controlled environment. She spent nearly nine months in a room within her home stripped of carpeting or synthetics (essentially free of any chemically-derived furnishings or products) and required either oxygen or air filtration outside the controlled environment. The patient was unable to tolerate synthetic fabrics, cosmetics, perfumes and other scented products, pesticides, paints, inks, smoke, exhaust fumes, and natural gas.

Prior to coming to our center, this patient was evaluated by 35 physicians over an eight-year period. She had been prescribed tranquilizers and anti-depressants, which were unsuccessful in controlling her symptoms. This patient was totally disabled for three years due to the severity of reactions upon exposure to chemical substances. However, her condition was not properly diagnosed until coming to our office. Fat-biopsies (via needle aspiration) detected the presence of pesticides as well as other toxic residue. A comprehensive history revealed several possible causes of her condition. She lived within one mile of a city landfill for 20 years. On two separate occasions, she moved into a home within a week after extermination. She also worked in the cosmetics and clothing industry for ten

years. She was diagnosed as having a lupus-like syndrome, immune dysfunction, seizure disorder (abnormal EEG), and extreme chemical sensitivity, secondary to chemical exposure.

She completed 43 days on the BTR Program. Her health restoration was associated with significant decreases in toxin levels. The patient's overall condition improved by 85%. A post-program EEG showed no evidence of seizure activity. Follow-up immune profiles indicate restoration of immune function. She was again able to manage her household, drive, and within six months resumed employment. Though she remains sensitive to a degree, her condition is controlled.

This 46-year-old female (Case #56) suffered from constant headaches. Her history revealed she had been exposed to DDT and chlordane more than ten years earlier. The patient reported her intense headaches began after her condo had been treated for ants. Her headaches became constant for several months before she came to BioTox. Blood serum tests indicated she had elevated levels of xylene, as well as metabolites of DDT and chlordane. Tests also indicated she had a strong antibody response to trimellitic anhydride, formaldehyde, and isocyanates.

She reported being sensitive to many chemicals, and generally feeling ill since the onset of her headaches. After she underwent the Bio-Toxic Reduction Program her headaches were relieved and she felt generally in good health. Several months later, however, she returned feeling very poorly with a jaundiced appearance. Blood tests indicated a serious liver problem. An MRI and CAT-Scan revealed a large mass in her liver, which was determined to be a hemangioma. She began medical treatments to bolster her immune system and aid her liver and later spent two more weeks in BTR. Within a few weeks, her color was back to normal, and her overall health had improved. She has felt fine since and has had no further complications, but has been advised to avoid chemical exposures.

Toluene is a known central nervous system depressant. Because it is fat-soluble, it accumulates in the fat with repeated exposures. Toluene exposure is often accompanied with isocyanate exposure, which compounds the effects of toluene on the body. Isocyanates and toluene together produce damaging effects on the immune system, depress the CNS, and may cause pulmonary sensitivity. Permanent chemical sensitivity may result from chronic exposure to toluene or isocyanates.

A 41-year-old male (Case #11) was evaluated in 1984 with chief complaints of suicidal depression, severe anxiety states, abdominal pain, pyrosis, chest congestion, headaches, mood changes, memory impairment, nausea, insomnia, and generalized malaise. Seventy percent of his work involved repair of inflatable boats in an enclosed workspace. He worked routinely with epoxy resins, paint thinners, varnishes, and latex, which contained volatile hydrocarbons such as toluene and benzene. The acrylic adhesives contained isocyanates, a known pulmonary sensitizer. Working in excess of 50 hours per week, his symptoms became more severe, and he felt ill most of the time. Within seven months of the onset of his symptoms, he had become totally disabled.

A pulmonary specialist diagnosed him as having toxic "occupational" asthma, induced by solvent exposure. A gastroenterologist determined that he had severe reflux esophagitis caused by the toluene exposure. Though the patient did not have a history of drug or alcohol abuse, he was referred to a rehabilitation clinic. It was believed that his severe depression may have been associated with substance abuse. He was also placed on numerous psychotropic medications to combat his depression. All treatments proved unsuccessful.

Serum chemical analysis revealed an extremely high level of toluene at 39.0 ppb and antibodies to isocyanate, TMA, and formaldehyde. He was placed on the BTR Program, and his lungs cleared within three days. He completed 52 days of program time, and his health had improved by 85%. He no longer suffered from severe toxic asthma, headaches, or depression. Post-BTR serum chemical analysis revealed no detectable levels of toluene or any other volatile compounds. While he continues to be sensitive to toluene, isocyanates, and other hydrocarbons, he remains in fairly good health as

long as he can avoid re-exposure. Unfortunately, his workers' compensation doctors keep sending him back to work around the chemicals he was sensitive to which resulted in permanent disability. He credits the BTR Program with saving his life.

Research indicates that many of the impurities and/or the metabolites of methyl bromide are metabolized to carbon monoxide. Human studies indicate that carbon monoxide in the circulatory system contributes to a degeneration of blood vessels and an acceleration of atherosclerosis. Methyl bromide is also associated with lipid (fatty) accumulation in the liver, neuropathology such as numbness, gastrointestinal distress, insomnia, and impotence.

The case reviewed below exhibited these symptoms until the chemical residue was removed from his body.

This 44-year-old male (Case #63) was self-employed as a pest control operator with a primary exposure to methyl bromide for 11 years. His only protective device was a porous rubber mask. His chief complaints were confusion, fatigue, nervous exhaustion, poor memory, insomnia, speech difficulty, muscle weakness, muscle aching and twitching, hyperexcitability, chemical hypersensitivity, abdominal gas and bloating, impotence, constipation, and left-sided numbness of face and arms.

He enjoyed good health until 1984 when he began experiencing extreme chest pressure with pain radiating towards the left shoulder. He was admitted to the hospital and underwent surgery to repair lesions in his coronary artery. Although the operation was a success, his health did not improve significantly. He began to feel numbness on the left side of his face, upper extremities and below the knee. He had difficulty using his left hand and at times found it difficult to speak.

He was evaluated by many physicians, including neurologists and toxicology specialists. They concluded that he suffered from organic brain syndrome induced by occupational exposure to toxic chemicals. His long-term exposure to methyl bromide had been a major contributing factor in his coronary lesions and had resulted in cerebral dysfunction due to diminished arterial blood flow to a portion of the brain. Approximately 18 months after the onset of his health problems he came to BioTox. His blood was tested for methyl bromide and its impurities. Dichlormethane and chloroform were found in his blood. He spent 27 days on the BTR Program, after which his health greatly improved. The numbness and speech difficulties were gone, and many of his other symptoms were much improved. Independent physicians who had tested him before he came to BioTox estimated his condition had improved 70% following therapy. His condition gradually deteriorated starting about six months following detox, indicating detoxification pathways were impaired. At three and four years post-therapy, his condition is considered 50% improved. He functions well for about four hours, then requires rest. He has sustained permanent damage resulting in permanent disability.

This 52-year-old female (Case #49) came to the clinic due to extreme chemical hypersensitivity, following an allergic response to medically-prescribed painkillers. The patient complained of headaches, chronic fatigue, malaise, delusional states, and irritability. She was evaluated by a number of physicians and psychiatrists for these persistent symptoms. Blood chemical analysis revealed elevated levels of pesticides as well as a wood preservative (pentachlorophenol). The source of exposure is unknown. She was unable to tolerate the smells of toothpaste, deodorants, bug killers, lawn chemicals, etc. Her medical history reveals that she was prescribed pain killers for control of abdominal pain over a three-week period of time. It was later discovered that she actually had a ruptured appendix and underwent emergency surgery in 1961.

The patient reported having bizarre reactions to the pain medication, such as feelings of unreality, anger, and hostility. She described one incident where, shortly after taking the medication, she was driving home and "saw a boy jay-walking and started after him, with an intent to kill." She recalls having chased him down the street driving in her car, while he ran down the sidewalk. According to the

patient, the only reason she did not hit him was the fact that her religious beliefs somehow prevented her from following through. Episodes such as this occurred often, (throughout 27 years) yet she did not understand what was happening to her until she went through the BTR Program and experienced a similar reaction.

She had notable symptoms produced while in the sauna, such as headaches, fatigue, weakness, feelings of unreality, and heightened sense of smell. After one sauna session, she proceeded to head home, and a car cut in front of her on the freeway. She made every attempt to "run the guy into the ditch." After a time, her angered state subsided, however, she did not feel well upon returning home. Her husband returned her to the detox center, where she was placed back in the sauna. By this time she was in a stuporous state. Within 30 minutes of supervised monitoring in the sauna, she felt considerably better. After her session, she realized this was precisely the sensation she began to experience after use of the painkiller in 1961, when her ruptured appendix was misdiagnosed.

Following this episode in the sauna, she had considerably more energy and was finally able to do aerobic exercises. Prior to this she was too weak to attempt exercise. It is believed that the fat-storage of a drug (to which she was sensitive) predisposed her to other sensitivities as well. As the drug was released back in to the bloodstream, it apparently caused restimulative effects in the form of abnormal behavior, in addition to a stress on the immune system. She began exuding strong odors of nail polish and other chemicals used in acrylic nails during the course of the detoxification program. The patient had been a cosmetologist for ten years. The synergistic effects of cumulatively stored chemicals used in the cosmetic industry along with the drugs must be a consideration. The patient feels she has improved by 95% as a result of a 27-day detoxification program.

This 43-year-old female (Case #54) came to our clinic to seek relief from post-acute withdrawal symptoms following conventional drug rehabilitation. The patient had been clean of medically prescribed drugs (valium, percodan, codeine) for 13 months following drug rehab. However, she continued to suffer from episodes of muscle twitching, fatigue, altered thought process, poor memory, abdominal discomfort, mental confusion, and depression, as well as delusional states and hallucinations, during this year of abstinence. The patient reported hallucinations lasting up to five hours per night leaving her feeling as though she were "dead." She was often awakened at night by intense muscle tremors. She was discouraged at the lack of progress, even with strict adherence to supportive programs such as AA and NA, and was tempted to resume drug usage to cope with what appeared to be a "hopeless" situation.

The patient was placed on the BTR Program. She became aware that symptoms produced while in the sauna were reflective of previous drug use. After three days of BTR therapy, the patient slept through the night for the first time in 14 months. After 16 days on the program, she was able to think clearly and sleep through the night with consistency. By program completion, she no longer suffered from hallucinations. All symptoms markedly improved following a 24-day program.

According to the patient during a one-year post-BTR follow-up, "I was so confused while on the drugs, I didn't know what was happening to me or what to do about it. When I got the drugs out of my system, I was better able to overcome the addiction with the proper follow-up. I could not have done this without the BTR Program. I could not have made it on my own with the persistent hallucinations. I no longer have these symptoms. The program is a must for rehabilitation. I have managed to stay away from all drugs." She indicated a 95% improvement immediately upon program end.

This 14-year-old male (Case #58) came to BioTox after completing a 30-day drug rehabilitation program. According to the patient's history, he began to develop cognitive and behavioral problems as a result of a chronic exposure to hexane, a neurotoxic solvent found in the paints used by his mother in a home-based business. (His mother is now wheelchair-bound as a result of chemical damage to the central nervous system.)

The child became involved with drugs in order to cope with his inner hostility and general deteriorating mental state, commonly associated with cerebral toxicity. The patient used marijuana, cocaine, and crystal methamphetamine for some time before admission to a drug rehab program. Although the rehab program had been successful in treating his addiction and use of the drugs, he continued to experience symptoms that suggested the presence of drugs in his system. Persistent physical symptoms included muscle cramps, fatigue, and inability to concentrate. Tests performed at the rehab center following treatment indicated abnormal brain wave patterns. Additionally, his behavior suggested the drugs were still exerting a strong effect.

When first evaluated at the clinic, the patient demonstrated belligerent and antagonistic behavior. He had a very short attention span, "clouded mind," and would often fidget and wander aimlessly. He was placed on the BTR Program in an attempt to remove the stored residue of the drugs he had taken. He required constant monitoring to ascertain compliance of the program regimen. He made every attempt to miss sauna sessions and, in the beginning, was generally very uncooperative. However, as he spent more time on the program, his physical symptoms, primarily cramps and fatigue, markedly diminished, and his behavior was notably improved. Upon completion of the program, the staff noted a dramatic change. He began to demonstrate a pleasant disposition. There was also a recognizable improvement in mental clarity.

This 40-year-old male (Case #101) had an extensive history of excessive use of drugs and alcohol. Living in Hollywood and working in the film industry left him particularly vulnerable to substance abuse. During the 1960s, he began using marijuana, barbiturates, LSD, cocaine, etc., mixed with alcohol. By 1975, he was traveling with various rock musicians and became heavily involved in the drug culture.

Past medical history denies any serious illness other than hepatitis at age six. He represents a textbook case of drug abuse with frequent flashbacks. According to the patient, before detoxification, "My memory was gone, my sense of balance was not good, I found myself becoming irritable with everyone, feeling run down, and extremely fatigued with frequent headaches." Presenting symptoms included obesity, tenderness and pain in the thoracic region, muscle spasms, and tenderness, rigidity in spine, blurred vision, and sleep apnea. Physical findings demonstrate hiatal hernia with reflux esophagitis. He exhibited septal perforation associated with previous cocaine use.

In 1985, he went through a month of hyperthermic detoxification after being off drugs for only one week. The usual flashbacks and physical symptoms occurred during this time, but with less severity. He described the sensation of feeling clean "inside." He noted he was no longer moody or depressed. His energy began to return along with the ability to concentrate and retain facts. After being completely clean from all drugs for one year he went through another two weeks on program and found an additional benefit. With an awareness of ambient environmental hazards, the patient now spends one or two days on program periodically just to keep his chemical levels down. He has been free from drugs and alcohol since 1985. He has lost 37 pounds in the past two months and feels that he is in excellent health.

This 37-year-old male (Case #102) first came to the clinic in 1984 with multiple chemical sensitivities. He worked for many years as an electrical engineer. He was a "universal reactor" who had become distraught after many unsuccessful attempts to regain his health. He had been having marital problems while trying to cope with alcoholism. He had an accident while under the influence and was arrested for drunk driving. Subsequently, he lost his car, his insurance, his driver's license, and his job. Symptoms of depression and despair persisted following treatment in an alcohol rehab program. The patient was referred to us by his attorney with the hope that we could detoxify him, manage his addictive disorder, and stabilize his severe depression. (He actually felt his life was over and was contemplating suicide.)

The patient felt he would never experience "joy" in his life again. But by the end of the second week of BTR, his depression began to lift, in spite of the fact his wife had filed for divorce to complete his losses, he now had to find a room, he still had no job or vehicle and he was having to make three bus changes to the center each day. A comprehensive history revealed that chronic allergies ultimately led to the addictive state. Following dietary modifications and a dramatic reduction of fat-stored toxins, he felt he had improved by 85%. Within five months of completing the program, he accepted a better job for which he had long aspired. With regained self-respect he began a new life with a happy heart, better health, and renewed self confidence.

This 35-year-old male California Narcotics Officer was exposed to PCP on what he thought was a "routine" marijuana bust in the spring of 1980. As he was apprehending the suspect, a 12-ounce container of PCP was showered in his face. Following the exposure, he suffered a number of physical and emotional health problems. He had become anxious and depressed. His attention span and ability to concentrate had greatly diminished. His memory was severely impaired, and his sense of balance was altered (finding himself continually walking into objects). He was normally an "easy-going" person, but following the occurrence, he became extremely irritable and short-tempered. He also experienced chronic fatigue and severe headaches following the exposure.

His attempt to get medical help left him more frustrated as he was advised that there was nothing wrong with him. He was repeatedly referred to psychologists and psychiatrists, where his problems were thought to be caused by "boredom with the job" or some other superficial rationale. He researched the effects of PCP on his own and looked into various health programs. It took him three years to find the Hubbard detoxification program. During the years of searching he was unable to work, while experiencing recurring flashbacks.

Though not as severe as the original exposure, the first day on the program he experienced a full-blown flashback, along with a bitter taste of PCP in his mouth. During this time, he felt disoriented and "drugged," as though his feet were not touching the floor. He also experienced a loss of balance and extreme fatigue while detoxifying. The "flashbacks" as well as headaches were intermittent for a couple of weeks. The fatigue lifted, he no longer experienced the headaches or depression. His mental clarity and ability to concentrate were restored. Within three weeks he was back to where he had been before the exposure. The officer was reinstated to his position.

One very important observation is that when a patient has been injured by a toxic exposure, they should be fully evaluated before any type of therapy is started unless it is lifesaving. The therapy of acute exposure is well documented, however the low dose chronic exposure victim requires a careful complete history, which will guide in clinical and laboratory evaluation. Only when this is completed should therapy be started. In our experience, when a patient has undergone multiple allergy testing and therapy without improvement, the prognosis is guarded in that these patients may never recover from their illness and have a far greater chance of permanent chemical hypersensitivity. Allergy evaluation or therapy should not be performed until the body burden has been decreased following detox therapy. It is also extremely important that these patients remain in a relatively clean environment, specifically avoiding exposure to the type chemicals that caused their original illness while they heal.

Discussion

Review of the literature indicates there is a variety of described physiological responses to the sauna and that the interpretation was just a side-interest of the investigators, sporadic, and lacking in long-term planning. A bias against the sauna seems to increase with the increasing geographical distance from Finland. Finns, on the other hand, can't find anything wrong with the sauna. This review revealed many shortcomings. There was no mention of ventilation, which is extremely important in air quality control. There was also no mention of cleaning the saunas or using safe clean water in a fresh clean bucket. There were also no studies on the ion effect on the sauna.

Other factors that were not considered include the following: the effects of diurnal rhythms, time of day of the sauna use in experiments, body surface area/body weight on the elevation of core temperature, effect of temperature on measuring equipment (this could invalidate blood pressure readings), all the factors in drawing blood that may give possible elevation of noradrenaline.

Given the above factors, physicians who use thermal chambers in detoxification programs must be diligent in monitoring and measuring the patient while under therapy. The large database that is being collected by many physicians over the last few years has clearly indicated that xenobiotics can be safely removed using detoxification programs that include the thermal chamber. From the above review of sauna use, clearly when one considers the millions of times that the sauna has been used without injury that with the use of common sense and being aware of one's own personal reactions, the sauna is a safe method for use in detoxification programs. One also has to realize that whatever the risk, it would be less than the continued health hazard of unpurged xenobiotics.

Consult your doctor before using any of the treatments found within this site.
<http://www.townsendletter.com/Nov2008/litreview1108.htm>