Research Studies and Papers

Biochemical Treatment of Mental Illness and Behavior Disorders

Minnesota Brain Bio Association

November 17, 1997

BIOCHEMICAL TREATMENT OF MENTAL ILLNESS AND BEHAVIOR DISORDERS

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Introduction

Treatment of schizophrenia, manic depression, and other forms of mental illness is extraordinarily expensive, unavailable to many Americans, and …worst of all… very limited in effectiveness. Mental illness can strike any family. The net result is often a life of misery for the patient, mental anguish and devastated finances for the family, and a great public sacrifice in terms of human potential lost and national health care costs.

The past few decades have seen a major advance in the understanding of mental illness. It is now clearly understood that schizophrenia, bipolar depression, and other mental disorders are primarily caused by imbalances in brain neurotransmitters. Stressful events and flawed life experiences are now viewed as aggravating factors that may trigger a breakdown in mental functioning, but not a primary cause.

This improved understanding has led to a revolution in the treatment of mental illness. In place of the psychiatrist's couch, the principal focus is now adjustment of disordered brain chemistry through the use of powerful drug medications. In the beginning, treatment was often more Edisonian than scientific with a variety of tranquilizers, neuroleptics, and other drugs applied on a trial-and-error basis. In recent years, "designer drugs" developed to alter the functioning of specific neurotransmitters, such as dopamine, serotonin, etc., have been introduced.

Medication therapy has produced wonderful benefits for many victims of mental illness. However, these benefits are usually partial in nature. In 1995, a typical patient with schizophrenia under medication may be able to live without institutionalization, but usually is only a shadow of his/her former self in terms of cognitive function, behavioral control, and peace of mind.

Limitations of Medication Therapy

Any medication aimed at a specific neurotransmitter will inevitably alter some of the dozens of other neurotransmitters. The net result is likely to be changes in behavior or other side effects. We should not expect that a powerful psychiatric medication will have effectiveness without some unwanted alteration of brain function. Moreover, schizophrenia, bipolar depression, and other mental disorders are not single illnesses but a diverse collection of disorders, each with different biochemistry. Thus any single drug may have strikingly different outcomes for different patients.

The development of new psychiatric drugs will not conquer mental illness, but will instead place additional weapons in the arsenal of the practitioner. Since mental illnesses are diverse and individual patients are biochemically unique, a larger number of candidate drugs will increase the likelihood of finding a beneficial medication (or combination of medications). Thus in future times, psychiatric patients will probably have medications with improved effectiveness

and fewer side effects. However, it is likely that these patients will still suffer from residual mental illness and experience side effects.

The ultimate remedy for mental illness may not be a collection of drug medications aimed at adjusting neurotransmitters. Advances in molecular biology and brain chemistry will eventually identify the basic causes and mechanisms of chemical imbalances, which may lead to more direct (and more natural) methods of adjusting neurotransmitters.

Biochemical Treatment

The brain is a chemical factory that constantly produces neurotransmitters throughout our lives. The raw materials are amino acids, vitamins, minerals, and other nutrients. The step-by-step processes by which the body produces the major neurotransmitters have been known for years.

Sufficient nutrients to produce neurotransmitters can usually be obtained from a well-balanced diet involving the major food groups. However, many persons have absorption or metabolic disorders which result in severe nutrient imbalances that adversely affect brain functioning. For example, animal studies (Dakshinamurti, et.al.) have shown that a diet low in vitamin B-6 can result in reduced serotonin levels in the brain. This is not surprising since B-6 is a vital cofactor required for natural synthesis of serotonin.

It would be a simple matter if all nutrient imbalances were deficiencies, since a multiple vitamin/mineral supplement would then have efficacy. Unfortunately, most imbalances involve overloads of certain nutrients, and multiple vitamin/mineral supplements can make these persons worse. For example, elevated copper has been associated with paranoia (Pfeiffer and Iliev), and high folate levels have been observed in obsessive-compulsive schizophrenics (Pfeiffer, et.al.).

Biochemical treatment is a modality in which nutrient levels in blood, urine, and tissues are balanced to improve physical and mental functioning. The procedure involves extensive chemical analysis of blood, urine, and tissues to define the patient's biochemistry. Treatment requires supplements of specific amino acids, vitamins, and minerals which need to be supplied with rifle-shot precision. Biochemical treatment can be effective only for persons with significant biochemical imbalances. This new therapy has been applied primarily to victims of schizophrenia, depression, and behavior disorders.

Biochemical Treatment of Schizophrenia

In the 1950's, Abram Hoffer discovered that many persons with severe mental illness improved greatly after treatment with vitamins B-3, B-12, and folic acid. Subsequently, Carl Pfeiffer, M.D., Ph.D. of Princeton, New Jersey, developed a classification system which divided schizophrenia into three major biochemical groupings which he termed histadelia, histapenia, and pyroluria. Pfeiffer studied more than 20,000 patients with schizophrenia and reported 90% of them fell into one of these three categories. He developed individualized nutrient treatments for each of these conditions and reported good treatment effectiveness across each group. Pfeiffer (now deceased) reported striking improvements in thousands of case histories, but unfortunately did not carry out double-blind, controlled studies of treatment efficacy. In the absence of double-blind studies, this promising treatment system has been regarded as unproved.

The Pfeiffer Treatment Center (Naperville, IL) has treated more than 1,000 persons with a diagnosis of schizophrenia using this system. An outcome study involving 150 patients indicated that best results are achieved for patients under the age of 40. Referring psychiatrists report that most patients improve significantly after biochemical treatment, enabling lower medication dosages and reduced side effects. Biochemical treatment for schizophrenia is most effective when administered along with medication, counseling and other conventional treatment. At the present state of development,

biochemical treatment usually does not result in complete freedom from medication for persons with severe mental illness.

Biochemical Treatment of Depression

The Pfeiffer Treatment Center has observed that most victims of depression fall into one of five biochemical classes: (1) high histamine, (2) low histamine, (3) pyroluric, (4) high copper, and (5) toxic overload. The treatment for these biochemical disorders is highly individualized, with most patients reporting good treatment effectiveness.

High-histamine depressives overproduce and retain excessive levels of histamine, an important neurotransmitter which affects human behavior. They are under-methylated resulting in generalized low levels of important neurotransmitters such as serotonin. This syndrome often involves seasonal variations in depression, obsessive-compulsive behavior, inhalant allergies, and frequent headaches. Biochemical treatment revolves around antifolates, especially calcium and methionine. Three to six month of nutrient therapy are usually needed to correct this chemical imbalance. As in most biochemical therapies, the symptoms usually return if treatment is stopped.

Low-histamine depressives are usually nervous, anxious individuals who are prone to paranoia and despair. They are over-methylated which results in elevated dopamine and norepinephrine levels. Although free of seasonal allergies, they often report a multitude of food and chemical sensitivities. Many have a history of hyperactivity, learning disabilities, and underachievement. Treatment focuses on use of folic acid together with niacinamide and vitamin B-12, with about 2-4 months required for correction of the imbalance.

Pyroluria is a stress disorder characterized by pronounced mood swings, temper outbursts, and anxious depression. Many pyrolurics report an inability to eat breakfast, absence of dream recall, and frequent infections. Treatment centers on correcting a double deficiency of B-6 and zinc, which is believed to result from abnormal hemoglobin synthesis that depletes the body of these nutrients. A

positive response often occurs within the first 7 days of treatment, with 1-2 months usually required for correction of the imbalance.

High-copper depressives usually have a history of hyperactivity, tinnitus, and skin sensitivity to metals. Females with this condition usually have significant PMS and are prone to heightened depression during hormonal events such as childbirth and menopause. They often report a worsening of depression after estrogen or multiple vitamins. Treatment focuses on release of excess copper from tissues, promotion of copper excretion, and stimulation of metallothionein (a metal-binding protein). Caution must be exercised due to the tendency of blood copper levels to rise during the first 10 days of treatment. Many patients report a mild worsening over the first 3 weeks, followed by steady improvement. A total of 60 to 90 days is usually required to correct this imbalance.

Toxic substances which are capable of producing depression include lead, cadmium, mercury, and a wide variety of organic and inorganic chemicals. This syndrome often involves a sudden, prolonged bout of depression without apparent reason and without a prior history of depression. Treatment varies with the type of toxic material involved, and care must be exercised to avoid flooding the kidneys with toxins during the early stages of treatment. Heavy-metal overloads can be corrected quickly by in-hospital chelation, or more slowly using biochemical treatment. Organic chemical overloads require liberal use of antioxidants along with avoidance of the offending substances.

In an outcome study of 200 depressive patients treated at the Pfeiffer Treatment Center, approximately two-thirds reported their anti-depressant medications were no longer necessary after biochemical treatment. However a double-blind, controlled study is needed to better define treatment efficacy.

Biochemical Treatment of Behavior Disorders

In the late 1970's, Dr. Walsh and co-workers developed a biochemical classification system for behavior disorders based on trace-metal

concentrations. Based on chemical analysis data from hundreds of violent criminals and behavior-disordered children, behavior disorders were divided into four distinct types.

Type A individuals are characterized by an elevated copper/zinc ratio, along with elevated lead and cadmium and low sodium and potassium levels. They exhibit episodic rages which may be quite violent, and usually exhibit remorse after they have calmed down. Patrick Sherrill who killed 17 co-workers in an Oklahoma post office was found to have a severe Type A imbalance. Many school children who are Type A individuals may have mild, moderate, or severe versions of this chemical imbalance.

Type B individuals are characterized by low copper/zinc ratios, along with elevated sodium, potassium, lead and cadmium. Most exhibit behavior disorders by age 2, and are often described as oppositional, defiant, pathological liars, remorseless, and cruel. The incidence of the Type B imbalance appears to be less than 0.5% in the general population, but between 20-75% in maximum-security prisons in Illinois, California, and Ohio. In studies of ex-convicts and violent children, Dr. Pfeiffer found these individuals to exhibit elevated blood histamine, low blood spermine, elevated kryptopyrroles in urine, and zinc deficiency. Notable examples of persons with a severe Type B imbalance include James Huberty (McDonalds massacre), serial killer Henry Lee Lucas, and Charles Manson.

Type C individuals are low in most nutrients and Dr. Pfeiffer identified their primary imbalance to be malabsorption. The majority are slender, non-violent, impulsive persons who underachieve in school and in the workplace.

Type D persons were found by Dr. Pfeiffer to exhibit glucose-control problems. These individuals are often non-violent underachievers who complain of irritability, fatigue, and sugar cravings.

The Health Research Institute (parent organization of the Pfeiffer Treatment Center) has accumulated a data base of chemistry levels for more than 6,500 behavior-disordered children, 800 violent

criminals, and 26 serial killers and mass murderers. We have found that about 90% of these persons fit into one of the A/B/C/D categories.

In the early 1980's, Dr. Pfeiffer developed individualized biochemical treatments for each of these behavior syndromes. Under this system, patients are screened and treated for trace-metal imbalances, histamine disorders, pyroluria, malabsorption, glucose disorders, and other biochemical imbalances. Nearly 7,000 behavior-disordered persons have been treated at the Pfeiffer Treatment Center using this system. In four separate outcome studies involving a total of 1,400 patients, a majority of the families reported major improvements in behavior control after biochemical treatment. These studies indicated good treatment effectiveness for most patients below the age of 14.

In a blinded, controlled study in 1992, 24 patients of the Pfeiffer Treatment Center were tested before and after 4 months of individualized biochemical treatment by an independent testing expert. The test group showed clear improvements in behavior control after treatment, whereas controls did not.

Our nation's problems of crime and violence will not be solved by getting tough with criminals, building more prisons, or wider application of the death penalty. The only hope is early identification of behavior-disordered children and effective treatment. Biochemical therapy represents a promising approach to this societal problem.

SUMMARY

Biochemical treatment, originally developed for schizophrenia, has also shown promise in the treatment of depression and behavior disorders. Although still in a process of evolution, the testing methods and treatment modalities have matured to the point that a high percentage of patients report treatment effectiveness. However, double-blind, placebo-controlled studies must be successfully carried out before this promising therapy can become part of mainstream medicine.

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