



2009
VOLUME 23
NUMBER 4

BIOGENIC AMINES

INTERNATIONAL JOURNAL OF STRESS
AND NEUROPROTECTION

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ISSN 0168-8561

Disclosure of The Causes of Mental Illness by Means of Diagnosis Ex-juvantibus via Bi-Digital O-Ring Test

Submitted: October 28, 2009 • *Accepted:* December 1, 2009

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Key words: mental illness; Bi-Digital O-Ring Test; immune diseases; opportunistic infection; intracellular infection; biogenic amines; common enteromicrobes; mitochondria; bio-resonance

1. ABSTRACT

It is well known that in the case of mental illness, disorders of biogenic amines, i.e., catecholamine, in cerebral neurons are observed. In conventional medicine mental illness is considered to be a quite different kind of malady from immune diseases. However, the author hypothesizes that mental illness may take place by intracellular infection of nonpathogenic common enteromicrobes into cerebral neurons in which deterioration of mitochondria occurs, resulting in a disturbance of the specific function of the neurons, namely a disordered metabolism of catecholamine, i.e. major kinds of neurotransmitters takes place by contaminated enteromicrobes in the same manner as immune diseases.

The author has disclosed that intractable immune diseases are not autoimmune diseases, but severe cases of opportunistic infections, or autotoxic diseases, due to enterobacterial infection and these have already been reported in several papers. These diseases are brought about by intracellular infection in various tissues or organs by means of infected granulocytes through Waldeyer's lymphadenoid tissue by mouth breathing as well as through GALT by cooling the gut with cold drinks. Due to intracellular infection, deterioration of

mitochondria in infected organ cells occurs, resulting in a disturbance of the specific function of the cells. Therefore, at the cellular level, immune diseases take place due to the deterioration of mitochondria by various causes.

Surveying by the Bi-Digital O-ring Test not only in the patient directly, but also in CT scanning film, intracellularly infected organs or tissues can thereby be detected and known as to what kinds of medicines or bifidus factors are most effective to cure the infection.

The author has developed new therapeutic methods for treating not only immune diseases but also mental illness by means of preventing intracellular infection as well as activating mitochondria, and administered effective antibiotics, antiviral agents, and bifidus factors to various patients who have been diagnosed as having mental illness and treated by conventional medication by authorized hospitals.

With the successfully cured cases presented here, the hypotheses of the author are verified as diagnosis *ex-juvantibus*, i.e., diagnosis based on the results of treatment. Major causes of mental illness are disclosed to be intracellular infections of cerebral neurons by common enteromicrobes, just like common immune diseases are those of other organ or tissue cells.

2. INTRODUCTION

The author already published a paper entitled “Disclosure of Causes of Human-Specific Intractable Immune Diseases–Mitochondrial Deterioration Due to Intracellular Infection” as well as a paper entitled “Disclosure of Causes of Human-specific Intractable Immune Diseases by Means of Bio-energy Resonance–Detection of Mitochondrial Deterioration Due to Intracellular Infections Using Bi-Digital O-Ring Test.” And another related paper entitled “Human Specific Intractable Immune Diseases – The Hypothesis and Case Presentation to Disclose the Causes and the Cure.”

This time he reports a new paper to disclose the causes of mental illness, which is conventionally considered to be unrelated to common intractable immune diseases.

The author has successfully developed hybrid type artificial bone marrow chambers *in vivo* by applying biomechanical stimuli to bioceramics which were implanted into muscles of vertebrates. After the experiment, the author disclosed that biomechanical stimuli, namely, energy, are converted to streaming potential in vertebral organisms and this potential triggers gene expression

of the mesenchymal cells in the mechanical supportive skeletal system and in the reticuloendothelial system to induce osteogenesis as well as osteoclast conjugated with hemopoiesis. Namely, energy triggers the gene expression in some cases, just like substance with mass, e. g., oxygen. This means that energy can trigger the cause of some maladies. Conventional life science however lacks such a concept. This new concept brings about a breakthrough to stagnant conventional life science. The author has disclosed that the evolution of the immune system is the same as the evolutionary metamorphosis of the hemopoietic organs.

He has also disclosed that the immune system at the cellular level in mammals is the remodeling system of the cells which facilitates the metabolism of cells, namely cellular life power, and that at the cellular level immune diseases are induced by mitochondrial deterioration. This occurs by means of the following six items: 1.) improper energy, 2.) malnutrition, including oxygen and water, 3.) toxic substances, 4.) infection by pathogenic microbes, 5.) intracellular infection by nonpathogenic common enteromicrobes, and 6.) transplanted organs or tissue of creatures.

All stimuli affecting creatures, e.g., neural and physicochemical, nutritional, toxic, bacterial, and parasitic, stimuli, as well as psychological stresses, are transmitted through the thalamus into the hypothalamus by means of the neuromuscular system and via the cardiovascular system through the choroid plexus, which are composed of ependymocytes and pia mater in which there are no blood brain barriers. These stimuli are transmitted to the nuclei of the hypothalamus.

There, in neurons of nuclei neural stimuli are then converted into hormones, cytokines and growth factors, which are the direct control system of intracellular respiration of mitochondria in 60 trillion cells. They are carried through the axon to the portal vein in the anterior lobe of the hypophysis and are delivered to all systemic hormonal organs. After that, the medium informational substances (hormones, cytokines and growth factors as well as nutrition.) are delivered over the whole body to mitochondria in 60 trillion cells. This is the hypophysis-systemic hormonal system. All metabolism based on cellular respiration in all cells in creatures having 800~3,000 mitochondria are directly controlled by the medium namely humoral information system of hormones, cytokines, growth factors, nutrition, and toxin as well as parasitic microbes.

3. INTRACELLULAR INFECTION AND THE BIO-ENERGY RESONANCE SYSTEM OF BI-DIGITAL O-RING TEST.

Nonpathogenic common entero bacteria mycoplasma and viruses are easily parasitic in various organ cells, intracellularly in some conditions, and these are opportunistic infections. Intracellularly infected microbes bring about the deterioration of mitochondria in organ cells and cause functional disturbances of mitochondria. All substances with mass have electron spin at the atomic and molecular level and this spin and the mitochondrial current, i.e., the electron transmitting system in cerebral neurons exhibit resonance phenomena, which we can detect by the strength of samato-muscle contraction. By observing these resonance phenomena we can detect intracellular infections and diagnose maladies. Consequently, we can determine effective substances to apply to cure these maladies by means of resonance phenomena.

Characteristics of the animals, which are composed of a hydro-colloid organic substances, are movement. In animals, the neural and muscular systems develop concomitantly. There are no muscles without the neural system and no neurons without the muscular system. The cerebral and spinal systems belong to the muscular system. In the functioning of animal cells, mitochondria are working as the electron transmitting system of oxidative phosphorylation. Mitochondria are the generator system of bio-electricity as well as energy substance of ATP and the entity of the bio-resonance system. Substances are made of elements in which all atoms have electron-spin and nuclear magnetic resonance. All substances with mass and mitochondria in neurons exhibit resonance. Resonance phenomena of mitochondria in neurons with contaminated microbes or supplements are detected through muscle contracting strength in the Bi-Digital O-Ring Test using fingers, because only digital muscles resist fatigue. The electron transmitting system of mitochondria in every organ deteriorates due to intracellular infection with common enterobacteria or viruses without pathogenicity.

Intracellularly infected organ cells can be detected by the strength of muscle contraction by the bio-energy resonance system of the Bi-Digital O-Ring Test and effective medicines or supplements can also be detected by the resonance system.

4. MITOCHONDRIA ACTIVATING THERAPEUTIC METHODS FOR MENTAL ILLNESS

By application of this bio-energy resonance system, we can detect intracellularly infected organs or tissues as well as know what kind of medicines, bifidus factors or energies are effective and the kind of energy or substance that can counteract (neutralize) the poisons. By human characteristic structural defects and improper habitual behaviors human-specific intractable diseases as well as mental illness occur.

From the viewpoint of energy, as well as the cellular metabolism of energy, humans have the following six major structural defects or mistaken habitual behaviors: 1) breathing through the mouth, 2) cooling the body by air-conditioners, cold drinks and ice cream, 3) workaholism without sufficient bone rest, 4) infant feeding of solid foods with protein instead of mother's breast milk, 5) lack of natural solar light in rooms, and 6) excessive drinking and eating with poor oral hygiene via periodontal disease.

Considering these six weak points to cure or prevent intractable immune diseases, the author has developed mitochondria activating therapeutic methods for mental illness (MATM). It is constructed from the following three items. Therapeutics are closely integrated with each of these: 1) Best breathing, i.e., to remedy trilateral biomechanical habitual mouth breathing, unilateral mastication, and the improper sleeping posture; 2) Energy control by avoiding cold drinks and ice cream, and not cooling the skin, as well as warming the gut, and exposure to sunshine (sun bathing); and 3) Curing of the gut by enough mastication with good oral hygiene and ingesting optimal bifidus factors and antibiotics or antiviral agents, which can be detected by the Bi-Digital-O-ring Test.

5. CASE PRESENTATION

Fifteen cases of mental illness are reported, which were diagnosed by authorized institutions, such as universities or national hospitals. The author has developed mitochondria activating therapeutic methods to remedy and cure mental illness by means of prevention and recovery from intracellular infections by the following composite methods; Avoiding cold drinks as well as ice cream and mouth breathing in conjugation with nose breathing during sleep and warming the gut, recovering bone rest time by laying down, moderate eating and drinking with optimal mastication, treating periodontitis, exposure to artificial sunlight bathing, and administering effective antibiotics

and/or antiviral agents as well as bifidus factors. These fifteen patients are categorized into five groups as follows:

Group 1: Mental retardation and epilepsy by taking children's food during breast milk feeding period as well as breathing through the mouth.

Case 1: Two-year 7-month-old male child, who had been fed children's food after only 5 months instead of mother's breast milk concomitant with mouth-breathing.

He ate adult meals in small-sized pieces and had unfocused eyes and was unable to speak. After a Bi-Digital O-ring Test it was found that his cerebral neurons were contaminated by common enteromicrobes. Using a teething ring, he was nursed with sucking bottled milk at 42C° with bifidus factors. After one week his eyes recovered their focus and one month later he could speak children's words. Complete recovery has been obtained.

Case 2: Five-year-old male child with epilepsy and asthma.

He had been fed raw shrimps of sushi at just one year and a half instead of powdered milk. One year later he had convulsions with a fever after eating shrimp or shellfish. He had taken anticonvulsants, which had been prescribed by his pediatrician, therefore, he lacked facial expression. As he breathed through the mouth, severe tonsillitis was observed. Using a teething ring, eating no animal protein, but only vegetables and no cold drinks, he recovered completely from epilepsy and asthma after 3 months.

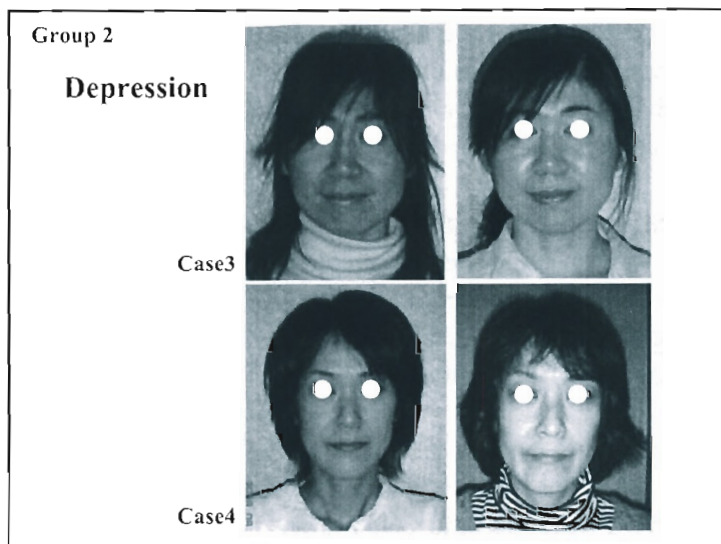
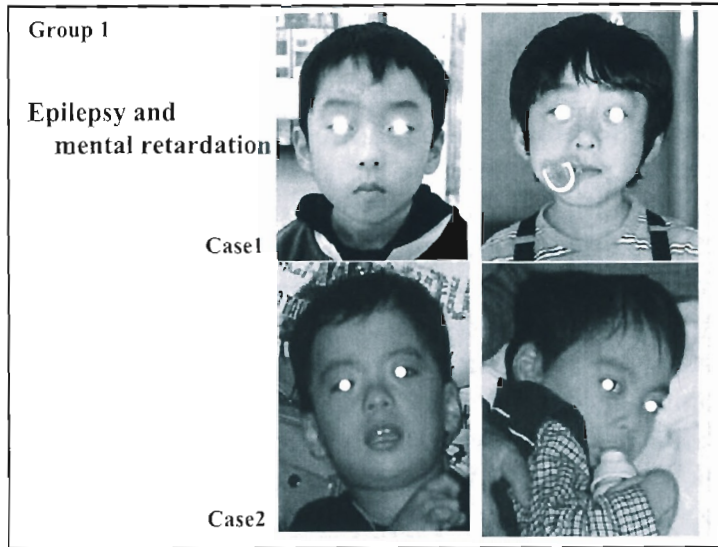
Group 2: Depression

Case 3: 37-year-old female had been treated with antidepressants in hospital.

She was completely cured by our MATM with effective antibiotics and bifidus factors.

Case 4: 43-year-old female had been suffering from depression and was treated with antidepressants in hospital. She was cured by our MATM by administering antibiotics taken per oral and intravenously as well as bifidus factors.

Case 5: 24-year-old female with depression who had taken too much cold drinks and who was treated with antidepressants in hospital, was cured by the MATM with bifidus factors, after decreasing and stopping antidepressants.



Group 3: Schizophrenia

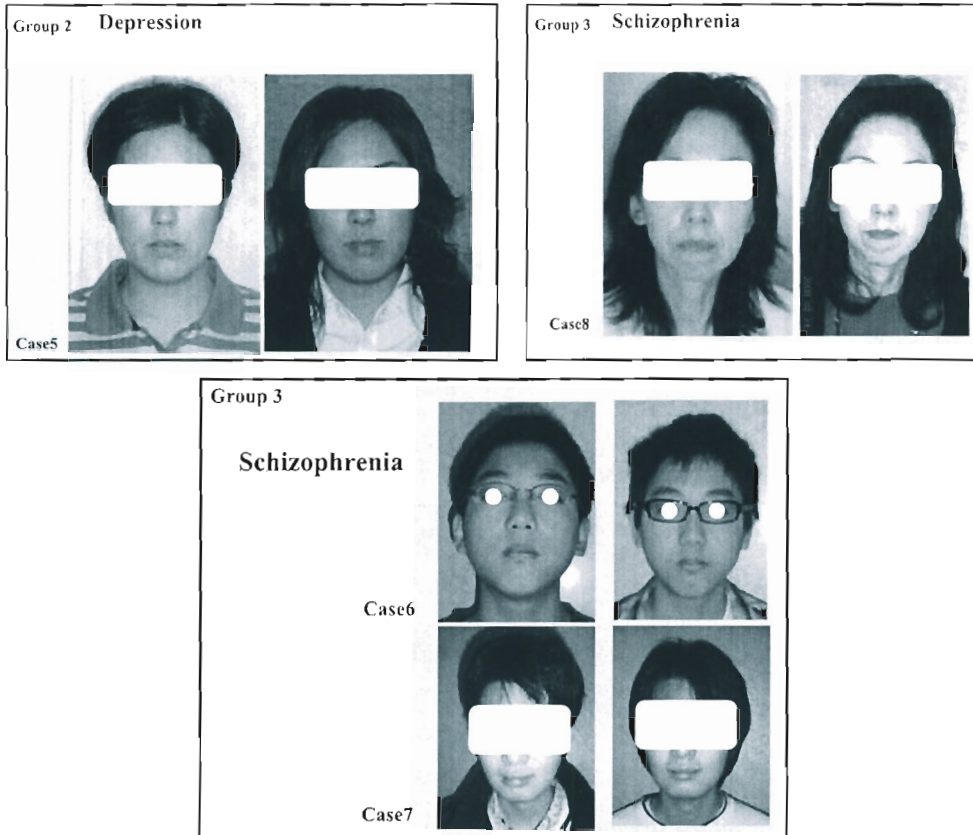
Case 6: 15-year-old male with severe schizophrenia, who was placed in a mental hospital. During hospitalization he was surveyed with the Bi-Digital O-ring Test which detected intracellular infection in cerebral neurons by chlamydia, herpes viruses and common enterobacteria. He was administered with effective antibiotics, antiviral agents, and bifidus factors concomitant with antipsychotics. After being discharged from the mental hospital, administration of antipsychotics was stopped and complete recovery was obtained by taking antibiotics, antiviral agents, and bifidus factor.

Case 7: 20-year-old male student who had trained hard on a special Japanese flute through mouth breathing during a cold winter. He had a severe attack of hebephrenic schizophrenia with severe convulsions and auditory hallucination. He was hospitalized and administered with a large amount of antipsychotics equivalent to 3000mg of chlorpromazine. He called on us after being discharged from the hospital and recovering at home taking antipsychotics equivalent to 900mg of chlorpromazine. Surveying him with the Bi-Digital O-ring Test, rather severe intracellular infection of cerebral neurons was detected (-3) by common enterobacteria, to which intravenous and per oral antibiotics as well as bifidus factors were effective. By administering them he was completely cured in very short period after stopping antipsychotics completely. After that he never tried playing the flute by breathing through the mouth, taking cold drinks, inadequate sleeping, and he always kept his body warm. Applying a complete MATM he was able to fully recover.

Case 8: 54-year-old female with severe schizophrenia with auditory hallucinations, who had taken so many cold drinks and spoke too much, was treated with antibiotics and antiviral agents, which were detected to be effective for cytomegalovirus infection by Bi-Digital O-ring Test. By MATM, marked recovery was obtained.

Case 9: 38-year-old female with schizophrenia having auditory hallucinations who breathed through the mouth and liked cold drinks, had a pale complexion without expression, was treated with MATM via Bi-Digital O-ring Test and administering antibiotics and bifidus factors. Marked recovery was obtained with expression, smile, and good complexion.

Case 10: 36-year-old female with buccal defined scleroderma and schizophrenia with auditory hallucinations had taken antipsychotics since 2002 until March 2007, when she had given birth. Following that she had taken no antipsychotics for a while, but has had auditory hallucinations so had started medication again. Bi-Digital O-ring Test evaluation of the thymus were (right-2) and (left-3) and her complexion was pale and without expression. Several antibiotics, which were effective to both intracellular infections of neurons and mesenchymal and cells in subcutaneous regions of scleroderma detected by the test, was administered intravenously, as well as per oral, then marked recovery against fatigue was obtained. One month later after starting MATM, she stopped antipsychotics and had effective antibiotics and bifidus factors with several intervals. Marked recovery was obtained with both mental illness as well as defined scleroderma.

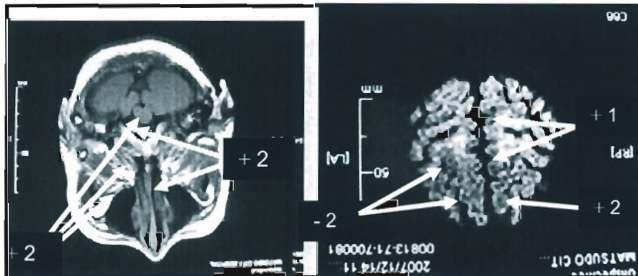
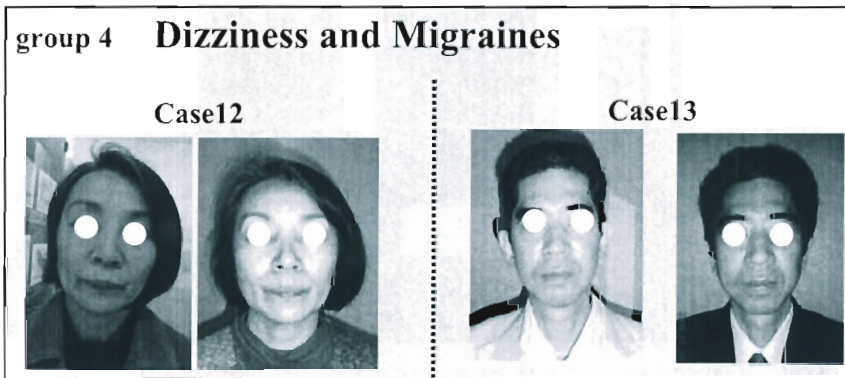


Case 11: 41-year-old female with schizophrenia who had delusions and hallucinations for 3 years was treated by MATM via Bi-Digital O-ring Test and administered effective antibiotics intravenously as well as per oral and bifidus factors. Complete recovery was obtained.

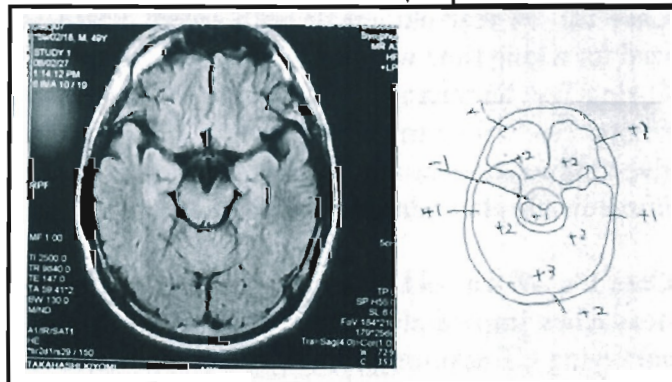
Group 4: Dizziness and migraines

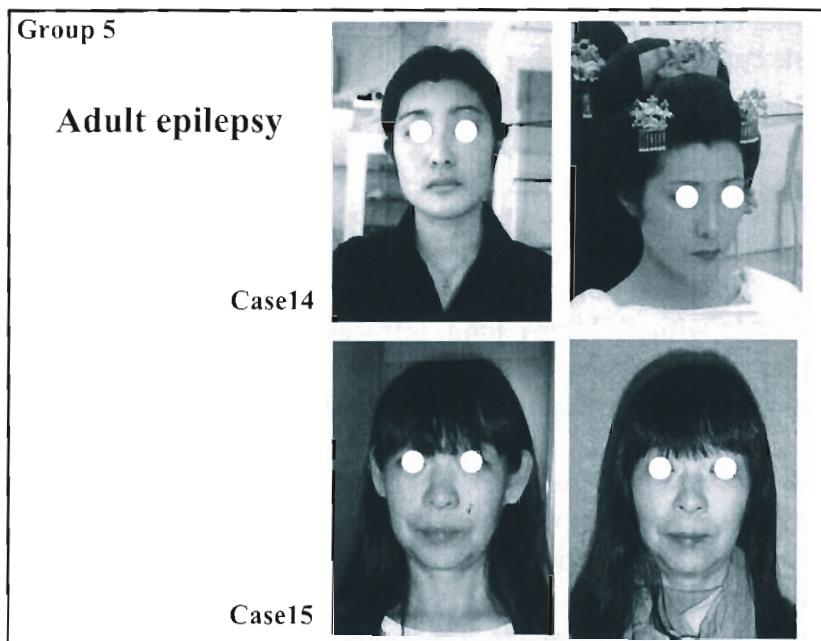
Case 12: 59-year-old female with severe dizziness, who had been hospitalized for a long time without improving, was treated by MATM via Bi-Digital O-ring Test. Surveying her NMR film by the test, intracellular infection of the frontal cerebral neurons by common enterobacteria was detected and effective antibiotics were administered per oral. She showed a marked recovery immediately after administration and soon later was completely cured.

Case 13: 49-year-old male with severe migraines, who started getting severe headaches immediately after multiple teeth treatment by his dentist. By surveying CT scanning film of the cerebrum, a viral infection of the limbic



BDOT





system was detected by the Bi-Digital O-ring Test to determine effective antiviral agents. By administrating them per oral, immediate recovery was obtained and aches had markedly disappeared.

Group 5: Adult epilepsy

Case 14: 20-year-old female with epilepsy, who had been autistic in childhood, learned in Germany to play soccer. After returning she suffered severe attacks of epilepsy several times and was diagnosed with genuine epilepsy having anticonvulsants. Decreasing the anticonvulsants she was treated by MATM improving mouth-breathing to nose, not taking cold drinks, avoiding sports, and getting enough sleep with enough bifidus factors. Soon she recovered completely.

Case 15: 52-year-old female with severe epilepsy, who had severe attacks of epilepsy five times over 30years, had taken the anticonvulsant dilantine so long time. She had severe periodontitis with gingival swelling which was called dilantin gingivitis as a side effect of dilantine. Stopping anticonvulsants, she was treated by MATM avoiding cold drinks and avoiding sports and mouth breathing after that she was treated for periodontitis surgically by the author's clinic. To recover complete construction of dentition she was treated with prosthodontic as well as artificial dental root therapeutics. A complete cure of periodontal disease was obtained. After starting MATM with effective

antibiotics and bifidus factors, no small or grand attack was observed and a complete cure was obtained.

6. DISCUSSION

Mammalian infants have a species specific period of suckling breast milk in which their enteromicrobes are automatically incorporated into granulocytes and they disseminate enteromicrobes throughout the body. If they have been fed too early with children's food, intracellular infections in the brain may take place. Through mouth breathing, granulocytes with microbes enter into cerebral neurons via hypophysis, where the blood brain barrier does not exist.

As the neural cerebral system develops concomitant with the muscular system, there is no neural system without muscle and no muscle system without neurons. Therefore, the function of the brain is muscle movement, through which in archetype vertebrates, measurement of distance with fin is carried out, through which thinking starts. Therefore, if the muscle movement without regulation like convulsion or disordered thinking take place, inflammation by intracellular infection of common enteromicrobes in regulatory center of the brain neuron namely encephalitis should occur. Convulsion with fever and epilepsy are symptoms of encephalitis. Depressions take place by intracellular infection of visceral cerebral neurons, namely the limbic system as well as neurons of nucleus is thalamus or hypothalamus. Schizophrenia takes place by intracellular infection of neurons of the new cortex in the cerebrum as well as neurons of nucleus in the thalamus and hypothalamus. Dizziness and migraines are also intracellular infection of neurons in the frontal lobe of the cerebrum and neurons in the visceral cerebrum. Adult epilepsies take place by oral microbes and common enteromicrobes by cold drinks and ice cream, severe muscle movement, and breathing through the mouth. Especially, the gomphalic fibrous joint system, namely periodontal ligaments, is the generator of granulocytes with microbes of periodontal diseases, therefore oral microbes induce epilepsy easily by cold drinks and sports by mouth breathing.

The life of higher animals has both acceptors of energy and acceptors of substance with mass, i.e., nutrients and oxygen. The former are sensory organs and the latter are visceral organs. Not only digested nutrition, minerals, vitamins and, oxygen, but also common entero-microbe viruses and bacteria, are absorbed through visceral organs into blood or leukocytes and delivered to almost all cells via the bloodstream and lymphostream. At this time, microbes absorbed in leukocytes from the M-cell of Peyer's patch are disseminated into cells by contaminated leukocytes, namely granulocytes if the body tempera-

ture is lower than 36.5°C. This gives rise to intracellular infection of organ cells or tissue cells by non-pathogenic enterovirus or bacteria. If intracellular infection occurs in cerebral neurons, the function of the neuron cells deteriorates because of the dysfunction of mitochondria caused by bacteria or viruses. The author disclosed that this condition of intracellularly-infected cerebral neurons by nonpathogenic common entermicrobes is mental illness. All cells in creatures have the same genetic codes with the same basic cellular construction and carry out life activities by means of nuclear functions concomitant with mitochondrial energy metabolism. Mitochondria in each specific differentiated cell carry out not only all specific cellular functions but also intracellular communication by means of their cytokines. All stimuli affecting the creature, e.g., physicochemicals, nutrients, toxins, bacteria, parasites, and psychological stresses, are transmitted through the thalamus into the neurons in nuclei of the hypothalamus by means of the neuromuscular as well as the cardiovascular medium system via the plexus.

6.1 The hypophysis-systemic hormonal system

Between the hypothalamus and the hypophysis there are the following neural and hormonal systems: the hypothalamo-pituitary system, hypophysial thyroid system, pituitary-gonadal system, pituitary-adrenocortical system, hypophysial portal system, hypothalamo-neurohypophysial system, and hypothalamo-hypophysial tract.

These stimuli are converted into neurotransmitters, hormones, cytokines, and growth factors in neurons and are transmitted via axons to the posterior and frontal lobes of the hypophysis. They are then absorbed into portal vein of the hypophysis (*Figure 1*), which is the direct control system of mitochondria in all of 60 trillion cells. This is the hypophysis-systemic hormonal system. The hypophysis exerts a profound influence by regulating a large portion of the endocrine activity of the organism. It consist of anterior and posterior lobes, and pars intermedia, which differ from one another embryologically, histologically, and functionally. The anterior portion, or adenoypophysis derived from Rathke's Pouch, namely embryogenic oral mucosa, is glandular and richly vascular. The posterior, or neural, portion, the neurohypophysis, is intimately connected with the hypothalamic areas through numerous nerve fibers and some glandular elements which comprise the hypophyseal stalk. Its blood supply is derived from branches of the internal carotid artery, the hypophyseal arteries. The latter form a rich plexus around the stalk of the hypophysis, and blood from the stalk drains into a surrounding plexus. From this plexus, blood is supplied to the adenoypophysis by what has been

termed a portal circulation. This vascular supply is an important factor in the regulation of adenohypophyseal secretory activity: this lobe receives few nerve fibers. The neurohypophyseal lobe, in contrast, has a rich nerve supply from the supraoptic nuclei and the tuber cinereum located in the hypothalamus. The blood supply of the neurohypophyseal lobe from the inferior hypophyseal arteries enters the gland posteriorly, and is distinct from that of the adenohypophysis. There is little evidence of a direct functional relationship between the adeno and neurohypophysis, although secretions of the latter may augment certain hormonal activities of the former.

Also, each lobe has important interactions with the hypothalamus. The hormones of the neurohypophysis are synthesized in the supraoptic and paraventricular nuclei.

The hormones migrate as granules down the nerve fibers and accumulate at the nerve endings in the neurohypophysis (*Figure 2*). Secretion of the hormones is influenced by three types of stimuli: (1) action of central nervous system (2) osmotic pressure of the blood, and (3) drugs. Higher life forms, i.e., mammals, operate normally in a highly integrated fashion, despite their many specialized tissues which have diverse forms and functions. This is possible because mechanisms have developed for the transmission of information from one organ to another. One of these mechanisms is described as neural, implying transmission along anatomically distinguishable tracts of the nervous system. The other is humoral, connoting transmission through the humors of the body, notably blood plasma. In brain there is blood brain barrier generally. However, the hypophysis, pituitary gland and plexus there are no blood brain barrier. From here granulocytes with intracellularly contaminated enteromicrobes enter into liquor of the cerebrum, and then they disseminate common enteromicrobes. Hormones exert a regulatory function in response to environmental or other condition. The hypothalamus secretes several polypeptides with distinct stimulating action on the adeno-hypophysis. Besides this, intra-cellular infection of enteromicrobes into cerebral neurons occurs easily from Waldeyer's lymphadenoid ring via arteria carotis interna through hypophysis portal vein.

6.2 The simple theory of the life system

Conventionally, it is well known that the two major regulatory systems in mammals, viz., the nervous system and the endocrine glands, have multiple relationships and integrations in the regulation of secreting adeno-hypophysal hormones. These are in detail -

Fig 1

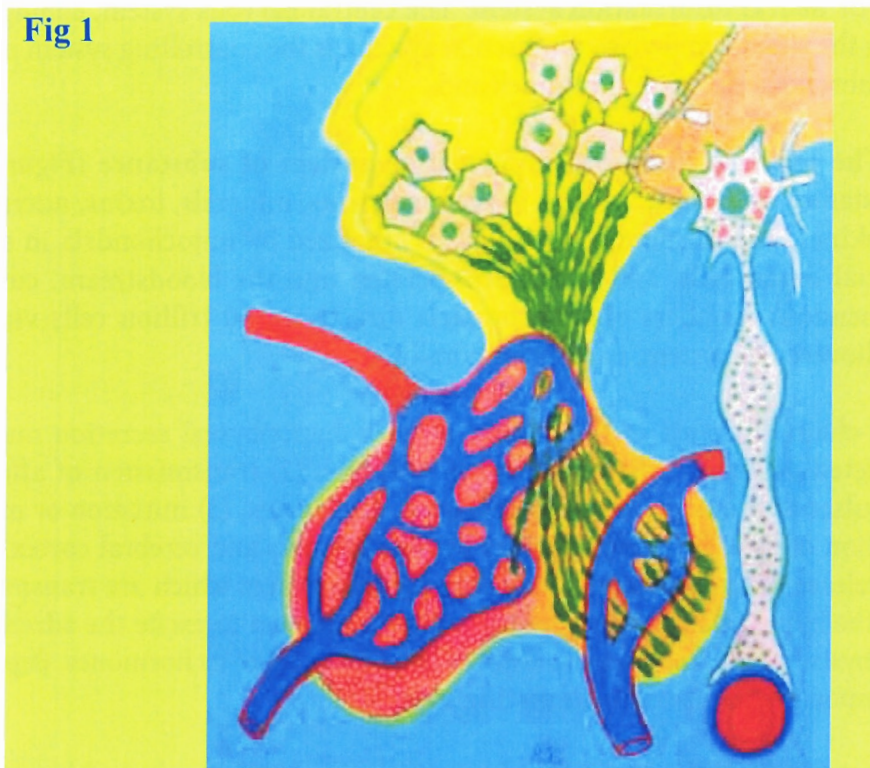
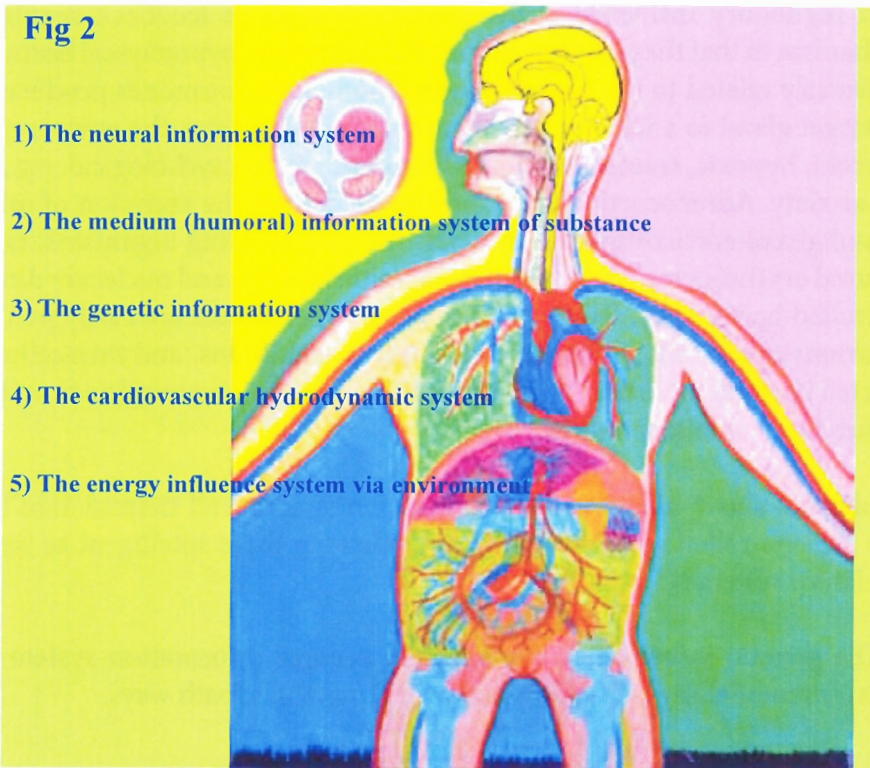


Fig 2



1) The neural information system: The central nervous system, conjugated with the somato and visceromotor system, is the controlling system of the membranous electric ion channel; and

2) The medium (humoral) information system of substance (Figure 2): Substances with mass, such as oxygen, nutrients, minerals, toxins, microbes, cytokines, and hormones, which are synthesized by mitochondria in some special organ cells, and which are secreted into the bloodstream, control tremendous numbers of mitochondria directly in 60 trillion cells via the cardiovascular system, namely humorally.

The chain of events in the control of adeno-hypophyseal secretion may be depicted as (1) stimulation of neuro-receptors, (2) transmission of afferent impulses to the thalamus, hypothalamus, and cortex, (3) initiation or modification of hypothalamic activities by the thalamus and cerebral cortex, and (4) release of hypothalamic neurohumoral substances which are transmitted via the hypothalamic hypophyseal portal circulation to excite the adeno-hypophysis, with a resulting secretion of one or several of its hormones, depending upon the nature of the initiating stimuli.

The products of the target glands, over which adeno-hypophyseal hormones exert regulatory influence, make possible a negative feedback regulatory mechanism in that the rate of secretion of certain adeno-hypophyseal hormones is inversely related to the blood concentration of the hormones produced by the target gland to a wide variety of stimuli, ranging from the environment, e.g., cold, hypoxia, trauma, noxious chemicals, etc. to psychological, e.g., fear and anxiety. Adrenocorticotropic hormones control the secretion of minerals and glycol-corticosteroid hormones. All cells in living organisms, except matured erythrocytes, having 800~3,000 mitochondria and nuclei are directly controlled hormonally. Bacteria, mycoplasma and viruses are easily parasitic in various organ cells, intracellularly in some conditions, and intracellularly infected bacteria or viruses bring about the deterioration as well as functional disturbances of mitochondria.

Besides the above mentioned two regulation systems, all mammalian body cells are controlled systemically by the following three intelligent as well as regulatory systems (Figure 2).

3) The genetic information system: The cellular information system that controls remodelling, self reproduction and metabolic path ways.

4) The cardiovascular hydrodynamic system: The topological streaming potential system works for biomechanical morphological change, except growth and development, against gravity energy in blood and lymph vessels as well as in muscles and skeletal bones of the hydrodynamic system;

5) The energy influence system via environment: In creatures, substances with mass as well as energy without mass, namely gravity, thermal stimuli, atmospheric pressure, sunlight energy, and electromagnetic energy, are able to trigger the gene expression of nuclei and mitochondria. Mitochondria supply energy substances in metabolism, development, growth, remodeling, and proliferation, and synthesize various kinds of cytokines, which can connect between tremendous numbers of cells. After that, life activities of multicellular animals are carried out as unified organisms. Without mitochondria no cells in vertebrates can live.

By these five regulatory systems concomitant with the ultra multiple functions of mitochondria as well as the hypophysis-systemic hormonal system mammalian multicellular creatures are controlled as unified organisms.

This is the simple theory of the life system, in which multicellular organisms with 60 trillion cells can be controlled as a unified system.

6.3 Disclosure of the cause of mental illness

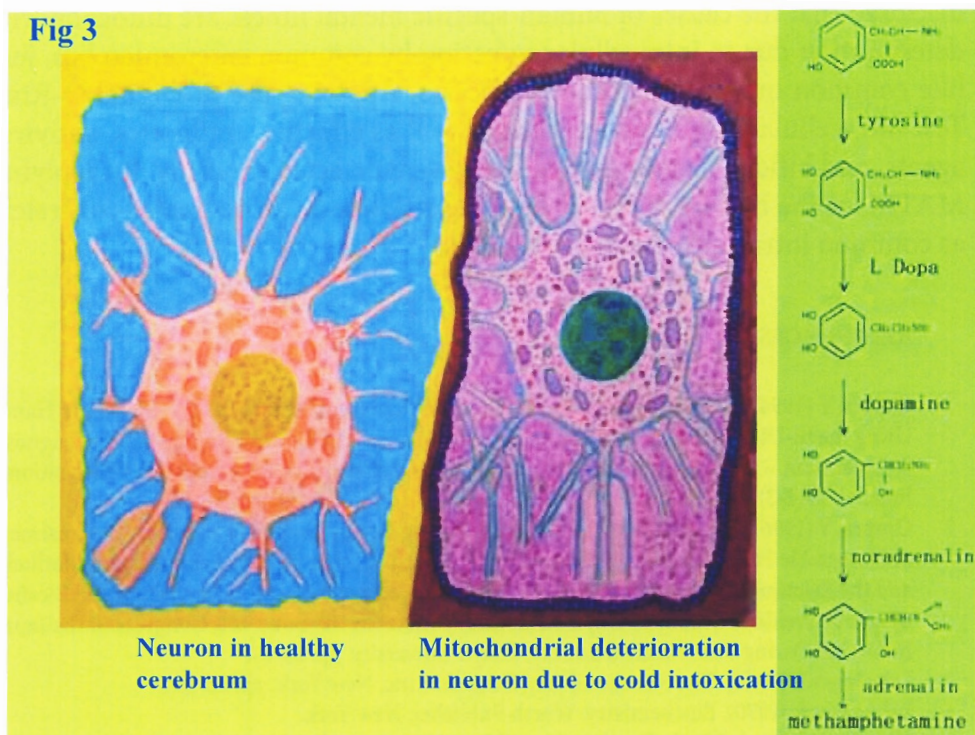
The life system of mammals are constructed from 60 trillion cells, which are composed of phospholipid-cell membranes containing water-soluble hydrocolloid of high molecular DNA in nuclei, protein, nutrition, and mitochondria in cytoplasm. At the cellular level, life activity of mammals depends upon vivid mitochondrial functions. Without mitochondrial energy generation, there is no cellular activity nor metabolism of life even existing the perfect DNA in nuclei. Therefore, healthy mitochondrial functions in all 60 trillion cells are inevitable for mammals. The most important organelle in cells are mitochondria for multicellular mammals. From this aspect, maladies of mammalian organs or tissues are due to mitochondrial deterioration at the cellular level. There are six items which can deteriorate mitochondrial functions: 1,) malnutrition, 2,) toxins, 3,) pathogenic infection, 4,) intracellular infection of non-pathogenic microbes, 5,) inadequate energy, and 6,) transplantation of organs or tissues.

The author discloses the cause of mental illness to be intracellular infection of nonpathogenic enteromicrobes in cerebral neurons just like intractable

immune diseases in other organs or tissues, which brings about the deterioration of mitochondrial functions. Mitochondria metabolize biogenic amines in healthy neurons. However, intracellularly infected microbes in neurons disturb the normal amino acid metabolic process. This condition is mental illness. All specifically differentiated cells have characteristic functions, which are supported by their mitochondrial functions. Brain neurons are categorized as tremendous kinds of specialized neurons and several kinds of neuroglia in various regions of the cerebrum, namely the limbic system, the thalamus, the hypothalamus, the cerebral cortex, and the cerebellum. However, it has been well known that in mental illness disorders in monoamine oxidases which are located on the membrane of mitochondria, take place in all cases. In brain neurons as monoamine neurotransmitters, there are serotonin, noradrenaline, adrenaline, DOPA, dopamine, glutamic acid, glycine, and GABA. Besides them there are cholinergic transmitters as well as adenocine and peptides.

From several kinds of amino acids biogenic amines are changed by decarboxylation into neurotransmitters. Therefore, some kinds of biogenic amines are physiologically important. From choline glycine is produced and glycine is essential for mitochondrial reproduction. GABA(γ -amino butylic acid) is produced from glutamic acid by decarboxylation, and DOPA, nor-adrenalin, and adrenalin are produced from amino acid tyrosine. Serotonin is produced from tryptophan. The metabolism of amino acid or biogenic amines is carried out by mitochondria in normal cells and they are a strong point for bacteria. Therefore, if intracellular infection of common enterobacteria occurs their metabolism is easily disturbed and a decrease or increase of DOPA or Dopamine occurs in cytoplasm of neurons. This condition is mental illness in cellular level. If adrenalin changes into methamphetamine in cytoplasm by intracellularly contaminated enterobacteria, hallucinations occur (*Figure 3*).

Recently mitochondrial diseases, mitochondrial cytopathy, mitochondrial cardiomyopathy and mitochondrial encephalomyopathy are clinically noticed, in which deterioration of morphology and functions of mitochondria via mutation of mitochondrial DNA in muscle cells or cerebral neurons are observed. How do mitochondrial mutations occur? The disclosure of the cause of mitochondrial mutation by disturbing cytological protein synthesis in yeasts using cycloheximide was the author's research thesis 40 years ago. Instead of cycloheximide severe intracellular infection of nonpathogenic common enterobacteria and/or common viruses should induce deterioration of mitochondria. Mitochondria and bacteria are similar kinds of procarryota,



therefore, bacteria take by force oxygen and nutrients from mitochondria and disturbance of protein synthesis in cytoplasm occurs just like the effect of cytoloheximide. Consequently, mutations of mitochondrial DNA take place. The deterioration of mitochondria in neurons induce mental illness just like intractable immune diseases by intracellular infection by common enteromicrobes in organ cells. Survey of effective antibiotics, antiviral agents, and bifidus factors can be tested by the bioresonance method of the Bi-Digital O-ring Test, certain treatment for mental illness namely intracellular infection in cerebral neurons can be carried out concretely.

7. CONCLUSION

The control center of the substance distributing system in blood and lymphoid fluid into cells namely the humoral system is the direct regulation system of mitochondria in whole body cells. This control center is the hypophysis-systemic humoral system. Dysfunction of this system by intracellular infection or by malnutrition, e.g., a complete lack of vitamins B or C, or by improper energy absorbance to whole cells, such as cold or heat, induces systemic dysfunction of mitochondria in whole body cells. In conclusion, the author has

disclosed that the causes of human-specific mental illness are mitochondrial deterioration due to intracellular infection by common enteromicrobes, just like common intractable immune diseases. Applying the Bi-Digital O-Ring Test intracellularly infected neurons as well as effective antibiotics, antiviral agents, and bifidus factors against them were detected certainly. By applying MATM via the Bi-Digital O-ring Test, mental illness can be treated concretely as common intractable immune diseases.

REFERENCES

- 1 Omura Y (1994). Accurate Localization of Organ Representation Areas on the Feet & Hands Using the Bi-Digital O-ring Test Resonance Phenomenon: Its Clinical Implication in Diagnosis & Treatment – Part I. Acupuncture and Electro-Therapeutics Research: The International Journal. **19**(2-3): 153-190.
- 2 Omura, Y (1996). Application of the Bi-Digital O-ring Test for Diagnosis and Effective Treatment of Intractable Pain, Infection, & Cancer Using Selective Drug-Uptake Enhancement Methods, and the Relationship Between these Intractable Problems and Harmful Environmental Electro-Magnetic Fields & Localized Deposits of Heavy Metal in the Body. 6th Congress of the Japan Bi-Digital O-ring Test. Medical Society, Tokyo University. pp. 58-61,
- 3 Lehninger L (1964). The Mitochondrion, Benjamin Inc, New York. pp. 56-104.
- 4 Lehninger L (1970). Biochemistry. Worth Publisher, New York.
- 5 Nishihara K et al (1994). Development of hybrid type artificial bone marrow using sintered hydroxyapatite, Bio-Medical Materials and Engineering **4**(1): 61-65.
- 6 Nishihara KJ Tanaka (1996). Successful inducement of hybrid type artificial bone marrow using bioceramics in various vertebrates. Bioceramics **9**: 69-72.
- 7 Nishihara K (2001). Verification of the Gravity Action in the Development of Bone Marrow Hemopoiesis During Terrestrialization. Ceramics, Cells and Tissues, pp. 277-288.
- 8 Nishihara K (2003). Differentiation into Hemopoietic Cells from Mesenchymal Cells in Porous Ceramic Bone Marrow Chamber Surface in Vivo by Means of Hydrodynamics. Ceramics, Cells and Tissues, Faenza, Italy. pp. 157-162.
- 9 Nishihara K (2003). Verification of use and disuse theory of Lamarck in vertebrates using biomaterials, Biogenic Amines **18**(1): 1-17.
- 10 Nishihara K (2004). Research on the evolution and development of autonomic nervous system. Biogenic Amines **18**(2): 95-106.
- 11 Nishihara K (2004). Establishment of a new concept of the immune system, disclosure of causes, and development of the therapeutic system of immune diseases. Biogenic Amines, Vol. **18**(2): 79-93.
- 12 Nishihara K (2005). Trilateral research on neural system and biogenic amines: Disclosure of the major causes and mechanisms of human characteristic neurocerebromuscular (psychosomatic) disorders. Biogenic Amines **19**(3): 197-208.
- 13 Nishihara, K (2006). Disclosure of Mechanisms of the Mammalian Life System and Selye's Stress Theory, Biogenic Amines **20**(5-6):171-184.
- 14 Nishihara K (2007). Disclosure of Causes of Human-specific Intractable Immune Diseases - Mitochondrial Deterioration Due to Intracellular Infections. Biogenic Amines **21**(1-2):23-41.
- 15 Nishihara, K (2008). Development of therapeutics for human specific intractable immune diseases by means of bio-energy resonance. Remedy of mitochondrial deterioration due to intracellular infection using the Bi-Digital O-Ring Test. Review. Biogenic Amines Vol. **22**(1-2): 75-84.

- 16 Nishihara K (2008). Disclosure of major causes of mitochondrial mutation by means of molecular biology, Part 1. *Biogenic Amines* **22** (4-5)163-178.
- 17 Nishihara K. & Parvez H (2008). Disclosure of major causes of mitochondrial mutation by means of molecular biology, Part 2: The interaction between nuclei and mitochondrial genes during development of organelle mitochondria. *Biogenic Amines* **22**(4-5): 179-185.
- 18 Nishihara, K. & Parvez H (2008). Disclosure of causes of mitochondrial mutation by means of molecular biology. Part 3: Mitochondrial genes *Biogenic Amines* **22**(6): 251-260.
- 19 Selye H (1937). Studies on adaptation, *Endocrinology* **21**: 169-188.
- 20 Selye H (1978). *The Stress of Life* (Rev ed). Oxford, England: Mcgraw Hill. (515 pp). pp 97-246.

Table 1

errors and corrections.

P258. Line 6

Case 1 → Case 2

Case 2 → Case 1

P264. paragraph 2 line 9

encephaliti → encephalitis.

P266. paragraph 3 line 2

Figure 2 → Figure 1

P270. paragraph 2 line 5

decarboxylation → decarboxylation

P271. paragraph 2 line 5

anteloheximide → cycloheximide

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