The Biology of

Human Sexual Behaviour

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Chapter 1

Actinidic Archaea, Digoxin Synthesis, Neanderthal Metabolonomics and Androgynous Behavioural Patterns

Introduction

Neanderthal genes have been described in the homo sapien population. The Neanderthal brain has a prominent cerebellar cortex and small prefrontal cortex. This results in defective vocalization, symbolic speech, impulsive behaviour, obsessive traits, intuition and extrasensory perception. The Neanderthal brain structure results in female dominance and matriarchal social patterns. It was considered plausible that Neanderthal genomics and metabolonomics could also contribute to androgynous behaviour. Autistic patients tend to have Neanderthal metabolonomics and phenotype. It has been demonstrated that Neanderthal phenotype is due to symbiosis by actinidic archaea using cholesterol as an energy substrate. The actinidic archaea catabolises cholesterol with ring A being oxidized to pyruvate which gets channeled to the GABA shunt pathway resulting in the formation of glycine and succinyl CoA. This results in porphyrin synthesis. The side chain oxidation results in generation of short chain fatty acids. Cholesterol is also converted to steroidogenic estrogens and testosterone. The increasing growth of actinidic archaea converts the body metabolites the cholesterol which is subsequently oxidized and depleted. Cholesterol is also converted by actinidic archaea to endogenous digoxin which helps to integrate the neuro-immuno-endocrine system. Digoxin produces sodium potassium ATPase inhibition and increased in intracellular calcium inducing nitric oxide synthase and heme oxygenase generating gasotransmitters nitric oxide and carbon monoxide important in smooth muscle contraction and autonomic function. The study deals with assessment of Neanderthal metabolonomics in androgynous individuals.[1-16]

Materials and Methods

Fifty healthy individuals with androgynous behaviour and free of any disease were chosen for the study. Each individual had a normal age and sex matched control. The estimations done in the blood samples collected include cytochrome F420 activity, cholesterol oxidase activity - cholesterol ring oxidase activity, cholesterol side chain oxidase activity, digoxin, lactate, pyruvate, ALA levels and hexokinase activity. Neanderthal anthropometry was studied in the androgynous population. The statistical analysis was done by ANOVA. Informed consent and permission of the Ethics Committee was obtained.

Results

The results of the study were as follows. The androgynous individuals had increased cytochrome F420 activity, cholesterol oxidase activity, ring oxidase activity and digoxin synthesis. The androgynous had decreased PDH activity as indicated by increased pyruvate and lactate levels. The androgynous group had increased GABA shunt pathway as indicated by increased pyruvate. The androgynous group had increased porphyrin synthesis as indicated by increased ALA levels. They had increased hexokinase activity indicating a Warburg phenotype in this group. The androgynous group had features of Neanderthal metabolism as indicated by pyruvate dehydrogenase suppression. The androgynous group have the Neanderthal anthropometric phenotype with slanting forehead, large face, stubby nose, prominent mandibles, low 2D:4D ratio, large coarse trunk, macrocephaly and longer second toe as compared to big toe.

Table 1. *Anthropometric features in androgynous population.*

Groups	Neanderthal anthropometric	Total	Percentage
Normal	0 cases	50	0
Androgyny	40 cases	50	40

Table 2. *Effect of cerium and antibiotics on cytochrome F420.*

Group	CYT F420 % (Increase with Cerium)		CYT F420 % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	±SD
Normal	4.48	0.15	18.24	0.66
Androgyny	22.79	2.13	55.90	7.29
F value	306.749		130.054	
P value	< 0.001		< 0.001	

Table 3. *Effect of cerium and antibiotics on digoxin.*

Group	Digoxin (ng/ml) (Increase with Cerium)		Digoxin (ng/ml) (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Normal	0.11	0.00	0.054	0.003
Androgyny	0.55	0.06	0.219	0.043
F value	135.116		71.706	
P value	< 0.001		< 0.001	

Table 4. *Effect of cerium and antibiotics on pyruvate.*

Group	Pyruvate % change (Increase with Cerium)		Pyruvate % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Normal	4.34	0.21	18.43	0.82
Androgyny	20.99	1.46	61.23	9.73
F value	321.255		115.242	
P value	< 0.001		< 0.001	

Table 5. *Effect of cerium and antibiotics on delta amino levulinic acid.*

Group	ALA % (Increase with Cerium)		ALA % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Normal	4.40	0.10	18.48	0.39
Androgyny	23.20	1.57	66.65	4.26
F value	372.716		556.411	
P value	< 0.001		< 0.001	

Table 6. *RBC Digoxin (ng/ml RBC Susp).*

Group	Mean	± SD
Normal	0.18	0.05
Androgyny	1.38	0.26
F value	60.288	
P value	< 0.001	

Table 7. *Cytochrome F420.*

Group	Mean	± SD
Normal	0.00	0.00
Androgyny	4.00	0.00
F value	0.001	
P value	< 0.001	

Table 8. *ALA (umol24).*

Group	Mean	± SD
Normal	3.86	0.26
Androgyny	68.16	4.92
F value	295.467	
P value	< 0.001	

Table 9. *Pyruvate (umol/l).*

Group	Mean	± SD
Normal	23.79	2.51
Androgyny	102.48	13.20
F value	154.701	
P value	< 0.001	

Table 10. *RBC Hexokinase (ug glu phos/hr/mgpro).*

Group	Mean	± SD
Normal	0.68	0.23
Androgyny	8.46	3.63
F value	18.187	
P value	< 0.001	

Discussion

The study indicates that androgynous individuals tend to have the Neanderthal phenotype with skeletal characteristics. The androgynous individuals may have more of Neanderthal genotype. The metabolonomics in androgyny is suggestive of Neanderthal phenotype. There is increased actinidic archaeal symbiosis as indicated by increase in cytochrome F420 activity. The actinidic archaea uses cholesterol as a metabolic substrate. There is ring oxidation of cholesterol generating pyruvate. The pyruvate enters the GABA shunt pathway producing glycine and succinyl CoA. This results in porphyrin synthesis. The cholesterol is also converted to steroidal glycoside digoxin. Digoxin and porphyrin intercalation in the cell membrane produces sodium potassium ATPase inhibition and accumulation of intracellular calcium. The increase in intracellular calcium induces nitric oxide synthase, heme oxygenase and cystathione synthase generating nitric oxide, carbon monoxide and hydrogen sulphide. This results in vasodilation of the blood spaces in the corpora cavernosa and increasing autonomic function of the genitourinary system resulting in obsessive traits. The increasing cholesterol catabolism by actinidic archaea results in depletion of cholesterol from the body. This produces inhibition of estrogen and testosterone synthesis. This results in an asexual state and androgynous behaviour. The brain function depends on testosterone and estrogens. The sex hormones modulate hemispheric dominance. The estrogens produce left hemispheric dominance and testosterones produce

right hemispheric dominance. The lack of estrogens and testosterones in androgyny results in equidominance. This leads to equal function of the right hemisphere and left hemisphere and a state of creativity mixed with practicality. The right hemisphere is concerned with creative behaviour and the left hemisphere is concerned with practical behaviour. Equidominance results in the generation of a new phenotype with dominance of both creativity and practicality. Equidominance and lack of estrogens and testosterones can contribute to the social state of matriarchy. There is female dominance in society. The behavioural patterns between the male and female section of the population becomes homogenized. This results in generation of matrilineal societies and the demise of patriarchy.

Porphyrinuria and porphyria are the hallmarks of androgyny. This contributes to neuro-immuno-endocrine regulation and disease states associated with androgyny. The cholesterol is catabolized to porphyrins. Porphyrins are dipolar molecules and can contribute to quantal perception which is more in androgyny contributing to creativity, spirituality and extrasensory perceptive modes of this phenotype. Low level electromagnetic fields and its porphyrin messengers can regulate the brain mediating conscious and quantal perception. Porphyrin microarrays serve the purpose of quantal and conscious perception. The archaea and viroids via porphyrin synthesis can regulate the nervous system including the NMDA/GABA thalamo-cortico-thalamic pathway mediating conscious perception. Porphyrin photooxidation can generate free radicals which can modulate NMDA transmission. Free radicals can increase NMDA transmission. Free radicals can induce GAD and increase GABA synthesis. ALA blocks GABA transmission and upregulates NMDA. Protoporphyrins bind to GABA receptor and promote GABA transmission. Thus porphyrins can modulate the thalamo-cortico-thalamic pathway of conscious perception. The dipolar porphyrins in the setting of digoxin induced sodium potassium ATPase

inhibition can produce a pumped phonon system mediated Frohlich model superconducting state inducing quantal perception with nanoarchaeal sensed gravity producing the orchestrated reduction of the quantal possibilities to the macroscopic world. ALA can produce sodium potassium ATPase inhibition resulting in a pumped phonon system mediated quantal state involving dipolar porphyrins. Porphyrin molecules have a wave particle existence and can bridge the dividing line between quantal state and particulate state. Thus the porphyrins can mediate conscious and quantal perception. Porphyrins binding to proteins, nucleic acids and cell membranes can produce biophoton emission. Porphyrins by auto-oxidation can generate biophotons and are involved in quantal perception. Biophotons can mediate quantal perception. Cellular porphyrins photooxidation are involved in sensing of earth magnetic fields and low level biomagnetic fields. Thus porphyrin microarrays can function as a quantal computer mediating extrasensory perception. Porphyrin microarrays in human systems and brain owing to the wave particle nature of porphyrins can bridge the quantal world and particulate world. The porphyrins can modulate hemispheric dominance. There is increased porphyrin synthesis and RHCD and decreased porphyrin synthesis in LHCD. The increase in archaeal porphyrins can contribute to the pathogenesis of schizophrenia and autism. Porphyria can lead to psychiatric disorders and seizures. Altered porphyrin metabolism has been described in autism. Porphyrin by modulating conscious and quantal perception is involved in the pathogenesis of schizophrenia and autism. Thus porphyrins microarrays can function as a quantal brain modulating extrasensory quantal perception. Porphyrin microarrays can function as a quantal brain in communication with digital world and geomagnetic fields. The dipolar porphyrins in the setting of digoxin induced sodium potassium ATPase inhibition can produce a pumped phonon system mediated Frohlich model superconducting state inducing quantal perception with nanoarchaeal sensed

gravity producing the orchestrated reduction of the quantal possibilities to the macroscopic world. ALA can produce sodium potassium ATPase inhibition resulting in a pumped phonon system mediated quantal state involving dipolar porphyrins. Porphyrins by autooxidation can generate biophotons and are involved in quantal perception. Biophotons can mediate quantal perception. Porphyrin autooxidation is modulated by low level of electromagnetic fields and geomagnetic fields. Cellular porphyrins photooxidation are involved in sensing of earth magnetic fields and low level biomagnetic fields. Porphyrins can thus contribute to quantal perception. Low level electromagnetic fields and light can induce porphyrin synthesis. Low level EMF can produce ferrochelatase inhibition as well as heme oxygenase induction contributing to heme depletion, ALA synthase induction and increased porphyrin synthesis. Light also induces ALA synthase and porphyrin synthesis. The increased porphyrin synthesized can contribute to increased quantal perception and can modulate conscious perception. The human porphyrin microarrays induced biophotons and quantal fields can modulate the source from which low level EMF and photic fields were generated. Thus the porphyrin generated by extraneous low level EMF and photic fields can interact with the source of low level EMF and photic fields modulating it. Thus porphyrins can serve as a bridge between the human brain and the source of low level EMF and photic fields. This serves as a mode of communication between the human brain and digital EMF storage devices like internet. The porphyrins can also serve as the source of communication with the environment. Environmental EMF and chemicals produce heme oxygenase induction and heme depletion increasing porphyrin synthesis, quantal perception and two-way communication. Thus induction of porphyrin synthesis can serve as a mechanism of communication between human brain and the environment by extrasensory perception. Porphyrin microarrays can function as quantal computers storing information

and can serve the purpose of extrasensory perception. Porphyrins can serve as a two way communicating bridge between digital information storage systems generating low level electromagnetic fields and human systems. The low level of EMF produced by digital system enhances porphyrin synthesis and serves the purpose of two way extrasensory perception and communication. The human porphyrin quantal computers can in turn by biophoton emission modulate digital information storage system.

Low level of electromagnetic fields and its porphyrin messengers can induce the Warburg phenotype. An actinide dependent shadow biosphere of archaea and viroids in the above mentioned disease states is described. The archaea can synthesize porphyrins and induce porphyrin synthesis. Porphyrins have been related to schizophrenia, metabolic syndrome x, malignancy, systemic lupus erythematosis, multiple sclerosis and Alzheimer's diseases. Porphyrins can mediate the effect of low level electromagnetic fields inducing the Warburg phenotype leading to the above mentioned disease states. The Warburg phenotype results in inhibition of pyruvate dehydrogenase and the TCA cycle. The pyruvate enters the GABA shunt pathway where it is converted to succinyl CoA. The glycolytic pathway is upregulated and the glycolytic metabolite phosphoglycerate is converted to serine and glycine. Glycine and succinyl CoA are the substrates for ALA synthesis. The archaea induces the enzyme heme oxygenase. Heme oxygenase converts heme to bilirubin and biliverdin. This depletes heme from the system and results in upregulation of ALA synthase activity resulting in porphyria. Heme inhibits HIF alpha. The heme depletion results in upregulation of HIF alpha activity and further strengthening of the Warburg phenotype. The porphyrin self oxidation results in redox stress which activates HIF alpha and generates the Warburg phenotype. The Warburg phenotype results in channelling acetyl CoA for cholesterol synthesis as the TCA cycle and mitochondrial oxidative phosphorylation are blocked. The

archaea uses cholesterol as an energy substrate. Porphyrin and ALA inhibits sodium potassium ATPase. This increases cholesterol synthesis by acting upon intracellular SREBP. The cholesterol is metabolized to pyruvate and then the GABA shunt pathway for ultimate use in porphyrin synthesis. The porphyrins can self organize and self replicate into macromolecular arrays. The porphyrin arrays behave like an autonomous organism and can have intramolecular electron transport generating ATP. The porphyrin macroarrays can store information and can have quantal perception. The porphyrin macroarrays serves the purpose of archaeal energetics and sensory perception. The Warburg phenotype is associated with malignancy, autoimmune disease and metabolic syndrome x. Low level electromagnetic fields can induce the Warburg phenotype contributing to human disease.

The role of porphyrins and low level electromagnetic fields in regulation of cell functions and neuro-immuno-endocrine integration is discussed. Low levels of EMF fields can induce digoxin synthesis. Protoporphyrin binds to the peripheral benzodiazepine receptor regulating steroid and digoxin synthesis. Increased porphyrin metabolites can contribute to hyperdigoxinemia. Digoxin can modulate the neuro-immuno-endocrine system. Low level of EMF fields can modulate membrane, nucleic acid and protein structure and function via induction of porphyrin synthesis. Porphyrins can combine with membranes modulating membrane function. Porphyrins can combine with proteins oxidizing their tyrosine, tryptophan, cysteine and histidine residues producing crosslinking and altering protein conformation and function. Porphyrins can complex with DNA and RNA modulating their function. Porphyrin interpolating with DNA can alter transcription and generate HERV expression. Low level of EMF fields through modulation of porphyrin metabolism can produce heme deficiency by inhibiting heme oxygenase and ferrochelatase. Heme deficiency can also result in disease states. Heme deficiency results in

deficiency of heme enzymes. There is deficiency of cytochrome C oxidase and mitochondrial dysfunction. The glutathione peroxidase is dysfunctional and the glutathione system of free radical scavenging does not function. The cytochrome P450 enzymes involved in steroid and bile acid synthesis have reduced activity leading to steroid - cortisol and sex hormones as well as bile acid deficiency states. The heme deficiency results in dysfunction of nitric oxide synthase, heme oxygenase and cysthathione beta synthase resulting in lack of gasotransmitters regulating the vascular system and NMDA receptor - NO, CO and H_2S. Heme has got cytoprotective, neuroprotective, anti-inflammatory and antiproliferative effects. Heme is also involved in the stress response. Heme deficiency leads to metabolic syndrome, immune disease, degenerations and cancer. Low level electromagnetic fields can modulate cell functions and neuro-immuno-endocrine-genetic integration via induction of porphyrin synthesis. Low level electromagnetic fields via modulating porphyrin metabolism can produce an autonomic neuropathy. Protoporphyrins block acetyl choline transmission producing a vagal neuropathy with sympathetic overactivity. Vagal neuropathy results in immune activation, vasospasm and vascular disease. A vagal neuropathy underlines neoplastic and autoimmune processes as well as metabolic syndrome x. Low level electromagnetic fields by modulating porphyrin metabolism can induce cell death. Porphyrin induced increased NMDA transmission and free radical injury can contribute to neuronal degeneration. Free radicals can produce mitochondrial PT pore dysfunction. This can lead to cyto C leak and activation of the caspase cascade leading to apoptosis and cell death. Altered porphyrin metabolism has been described in Alzheimer's disease. The increased porphyrin photooxidation generated free radicals mediated NMDA transmission can also contribute to epileptogenesis. The protoporphyrins binding to mitochondrial benzodiazepine receptors can regulate brain function and cell death. Low level electromagnetic fields by

modulating porphyrin metabolism can generate redox stress to regulate cell functions. The porphyrins can undergo photooxidation and auto-oxidation generating free radicals. The archaeal porphyrins can produce free radical injury. Free radicals produce NFKB activation, open the mitochondrial PT pore resulting in cell death, produce oncogene activation, activate NMDA receptor and GAD enzyme regulating neurotransmission and generates the Warburg phenotypes activating glycolysis and inhibiting TCA cycle/oxphos. Porphyrins have been related to schizophrenia, metabolic syndrome x, malignancy, systemic lupus erythematosis, multiple sclerosis and Alzheimer's diseases. Low level electromagnetic fields by modulating porphyrin metabolism can regulate cell membrane sodium potassium ATPase. The porphyrins can complex and intercalate with the cell membrane producing sodium potassium ATPase inhibition adding on to digoxin mediated inhibition. Porphyrins can complex with proteins and nucleic acid producing biophoton emission. Low level electromagnetic fields by modulating porphyrin metabolism can regulate DNA, RNA and protein structure and function. Porphyrins complexing with proteins can modulate protein structure and function. Porphyrins complexing with DNA and RNA can modulate transcription and translation. Low level electromagnetic fields by modulating porphyrin metabolism can regulate mitochondrial function, peripheral benzodiazepine receptor and steroidogenesis. The porphyrin especially protoporphyrins can bind to peripheral benzodiazepine receptors in the mitochondria and modulate its function, mitochondrial cholesterol transport and steroidogenesis. Peripheral benzodiazepine receptor modulation by protoporphyrins can regulate cell death, cell proliferation, immunity and neural functions. Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress can regulate enzyme systems. The porphyrin photooxidation generates free radicals which can modulate enzyme function. Redox stress modulated enzymes include pyruvate dehydrogenase,

nitric oxide synthase, cystathione beta synthase and heme oxygenase. Free radicals can modulate mitochondrial PT pore function. Free radicals can modulate cell membrane function and inhibit sodium potassium ATPase activity. Thus the porphyrins are key regulatory molecules modulating all aspects of cell function. Low level of electromagnetic fields by modulating porphyrin metabolism can induce viroidal and HERV expression. There was an increase in free RNA indicating self replicating RNA viroids and free DNA indicating generation of viroid complementary DNA strands by archaeal reverse transcriptase activity. The actinides and porphyrins modulate RNA folding and catalyse its ribozymal action. Digoxin can cut and paste the viroidal strands by modulating RNA splicing generating RNA viroidal diversity. The viroids are evolutionarily escaped archaeal group I introns which have retrotransposition and self splicing qualities. Porphyrin photooxidation induced redox stress can produce HDAC inhibition. Archaeal pyruvate producing histone deacetylase inhibition and porphyrins intercalating with DNA can produce endogenous retroviral (HERV) reverse transcriptase and integrase expression. This can integrate the RNA viroidal complementary DNA into the noncoding region of eukaryotic noncoding DNA using HERV integrase as has been described for borna and ebola viruses. The archaea and viroids can also induce cellular porphyrin synthesis. Bacterial and viral infections can precipitate porphyria. Thus porphyrins can regulate genomic function. The increased expression of HERV RNA can result in acquired immunodeficiency syndrome, autoimmune disease, neuronal degenerations, schizophrenia and malignancy. Low level electromagnetic fields by modulating porphyrin metabolism and generating redox stress can produce immune activation. The porphyrin photooxidation can generate free radicals which can activate NFKB. This can produce immune activation and cytokine mediated injury. The increase in archaeal porphyrins can lead to autoimmune disease like SLE and MS. A hereditary form of MS and

SLE related to altered porphyrin metabolism has been described. The protoporphyrins binding to mitochondrial benzodiazepine receptors can modulate immune function. Porphyrins can combine with proteins oxidizing their tyrosine, tryptophan, cysteine and histidine residues producing crosslinking and altering protein conformation and function. Porphyrins can complex with DNA and RNA modulating their structure. Porphyrin complexed with proteins and nucleic acids are antigenic and can lead onto autoimmune disease. Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress can produce insulin resistance. The porphyrin photooxidation mediated free radical injury can lead to insulin resistance and atherogenesis. Thus archaeal porphyrins can contribute to metabolic syndrome x. Glucose has got a negative effect upon ALA synthase activity. Therefore hyperglycemia may be reactive protective mechanism to increased archaeal porphyrin synthesis. The protoporphyrins binding to mitochondrial benzodiazepine receptors can modulate mitochondrial steroidogenesis and metabolism. Altered porphyrin metabolism has been described in the metabolic syndrome x. Porphyrias can lead onto vascular thrombosis. Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress/heme deficiency can activate HIF alpha. The porphyrin photooxidation can generate free radicals inducing HIF alpha and producing oncogene activation. Heme deficiency can lead to activation of HIF alpha and oncogenesis. This can lead to oncogenesis. Hepatic porphyrias induced hepatocellular carcinoma. The protoporphyrins binding to mitochondrial benzodiazepine receptors can regulate cell proliferation. Low level electromagnetic fields by modulating porphyrin metabolism can regulate prion protein conformation. The porphyrin can combine with prion proteins modulating their conformation. This leads to abnormal prion protein conformation and degradation. Archaeal porphyrins can contribute to prion disease. Low level electromagnetic fields by

modulating porphyrin metabolism can produce redox stress and regulate HERV expression. The porphyrins can also intercalate with DNA producing HERV expression. The HERV particles generated can contribute to the retroviral state associated with androgyny. The porphyrins in the blood can combine with bacteria and viruses and the photooxidation generated free radicals can kill them. Low level electromagnetic fields by modulating porphyrin metabolism can lead to increase predilection for viral and bacterial infections. The archaeal porphyrins can modulate bacterial and viral infections. The archaeal porphyrins are regulatory molecules keeping other prokaryotes and viruses on check.

Thus the actinidic archaeal symbiosis results in neanderthalisation of the population and generation of androgyny. The actinidic archaeal overgrowth and symbiosis is a consequence of global warming. Archaea are extremophiles and increase in density during periods of climate change. The actinidic archaeal catabolism of cholesterol generates digoxin and increased intracellular calcium resulting in formation of excess of gasotransmitters important in autonomic function of structures like the corpora cavernosa. The cholesterol catabolism results in depletion of cholesterol and to a state of lack of sex hormone synthesis. This produces an asexual state resulting in a social system of matriarchy related to androgyny. The actinidic archaeal cholesterol catabolism generates porphyrins producing the extrasensory quantal perceptive state associated with androgyny. This contributes to the creativity of the androgynous state. The porphyrin synthesis associated with androgyny also contributes to the disease states associated with it. This includes autoimmune disease, cancer, degenerations, acquired immunodeficiency syndrome, metabolic syndrome x and all civilisational disease.

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Chapter 2

Actinidic Archaea, Digoxin Synthesis and Neanderthalisation - A Biological Theory of Sociopolitical, Spiritual, Sexual and Cultural Identity

Introduction

Actinidic archaea has been related to global warming and human diseases especially neuropsychiatric disorder. The growth of endosymbiotic actinidic archaea in relation to climate change and global warming leads to neanderthalisation of the human mind-body system. Neanderthal anthropometry and metabolonomics has been described in neuropsychiatric disorder especially the Warburg phenotype and hyperdigoxinemia. Digoxin produced by archaeal cholesterol catabolism produces Neanderthalisation. Prefrontal cortical atrophy and cerebellar hyperplasia has been related to neuropsychiatric disorder in this communication. This leads on to dysautonomia with sympathetic hyperactivity and parasympathetic neuropathy in these disorders. Actinidic archaeal related cerebellar dominance leads to changes in brain function.[1-16] The data is described in this paper.

Materials and Methods

Fifteen cases, each of neuropsychiatric disorder and internet addicts were selected for the study. Each case had an age and sex matched control. Neanderthal anthropometric and phenotypic measurements which included protruding supra-orbital ridges, dolichocephalic skull, small mandible, prominent mid face and nose, short upper and lower limbs, prominent trunk, low index finger-ring finger ratio and fair complexion were evaluated in the cases study. Autonomic function tests were done to assess the sympathetic and parasympathetic system in each case. CT scan of the head was done to have a volumetric assessment of the prefrontal cortex and cerebellum. Blood cytochrome F420 activity was assessed by spectrophotometric measurement.

Results

All the case groups studied had higher percentage of Neanderthal anthropometric and phenotypic measurements. There was low index finger-ring finger ratio suggestive of high testosterone levels in all the patient population studied. In all the case groups studied, there also was prefrontal cortex atrophy and cerebellar hyperplasia. Similarly in the all the case groups studied, there was dysautonomia with sympathetic overactivity and parasympathetic neuropathy. Cytochrome F420 was detected in the entire case group studied showing endosymbiotic archaeal overgrowth.

Table 1. *Neanderthal phenotype and systemic disease.*

Disease	Cyt F420	Neanderthal phenotype	Low index finger-ring finger ratio
Schizophrenia	69%	75%	65%
Autism	80%	75%	72%
Internet users	65%	72%	69%

Table 2. *Neanderthal phenotype and brain dysfunction.*

Disease	Dysautonomia	Prefrontal cortex atrophy	Cerebellar hypertrophy
Schizophrenia	65%	60%	70%
Autism	72%	69%	72%
Internet users	74%	84%	82%

Discussion

Neanderthal metabolonomics contribute to the pathogenesis of these disorders. There were Neanderthal phenotypic features in all the case groups studied as well as low index finger-ring finger ratios suggestive of increased testosterone levels. Neanderthalisation of the mind-body system occurs due to increased growth of actinidic archaea as a consequence of global warming. Neanderthalisation of the mind leads to cerebellar dominance and prefrontal cortex atrophy. This leads to dysautonomia with parasympathetic neuropathy and sympathetic hyperactivity.

Global warming and the ice age produces increased growth of extremophiles. This leads to increased growth of actinidic archaeal endosymbiosis in humans. There is archaeal proliferation in the gut which enters the cerebellum and brain stem by reverse axonal transport via the vagus. The cerebellum and brain stem can be considered as an archaeal colony. The archaea are cholesterol catabolizing and use cholesterol as a carbon and energy source. The actinidic archaea activates the toll receptor HIF alpha inducing the Warburg phenotype resulting in increased glycolysis with generation of glycine as well as pyruvate dehydrogenase suppression. The accumulated pyruvate enters the GABA shunt generating of succinyl CoA and glycine. The archaeal catabolism of cholesterol produces ring oxidation and generation of pyruvate which also enters the GABA shunt scheme producing glycine and succinyl CoA. This leads to increased synthesis of porphyrins. In the setting of digoxin induced sodium potassium ATPase inhibition the dipolar porphyrins produce a pumped phonon system resulting in the frohlich model Bose-Einstein condensate and quantal perception of low level EMF. Low level EMF pollution is common with internet usage. Perception of low level of EMF leads to neanderthalisation of the brain with prefrontal cortex atrophy and cerebellar hyperplasia. The archaea which reaches the cerebellum from the gut via the vagus nerve proliferates and makes the cerebellum dominant with resultant suppression and atrophy of the prefrontal cortex. This leads to wide spread autistic and schizophrenic traits in population. The actinidic archaea induces the Warburg phenotype with increased glycolysis, PDH inhibition and mitochondrial suppression. This produces neanderthalisation of the mind-body system. The actinidic archaea secretes RNA viroids which block HERV expression by RNA interference. The HERV suppression contributes to the inhibition of prefrontal cortex development in Neanderthals and cerebellar dominance. Archaeal digoxin produces sodium potassium ATPase inhibition and magnesium depletion

causing reverse transcriptase inhibition and decreased generation of HERV. The HERV contributes to the dynamicity of the genome and are required for the development of the prefrontal cortex. The HERV suppression contributes to retroviral resistance in Neanderthals. The actinidic archaea catabolises cholesterol leading to cholesterol depleted state. Cholesterol depletion also leads to poor synaptic connectivity and decreased development of prefrontal cortex. This is not genetic change but a form of symbiotic change with endosymbiotic actinidic archaeal growth in the body and brain.

Internet use and low level EMF pollution is common in this century. This results in increased low level EMF perception by the brain by the digoxin-porphyrin mediated pumped phonon system created Bose-Einstein condensates contributing to prefrontal cortex atrophy and cerebellar dominance. Cerebellar dominance leads to schizophrenia and autism. There is an epidemic of autism and schizophrenia in the present day community. The porphyrin mediated extrasensory perception can contributes to communication among Neanderthals. Neanderthals did not have a language and used extrasensory perception as a form of group communication. Because of dominant extrasensory quantal perception, the Neanderthals did not have individual identity but only group identity. Cerebellar dominance results in creativity consequent to quantal perception and group perception. The Neanderthalic traits contribute to innovation and creativity. Cerebellar dominance results in development of a symbolic language. The Neanderthals used dance and music as a form of communication. Painting as a form of communication was also common in Neanderthals. Neanderthal behaviour was robotic. Robotic behaviour is characteristic of cerebellar dominance. Robotic, symbolic and ritualistic behaviour is common with cerebellar dominance and is seen in autistic traits. The cerebellar dominance in Neanderthals leads to intuitive intelligence and a hypnotic quality to communication. The increased

extrasensory quantal perception leads to more communion with nature and a form of eco-spirituality. The increasing use of dance and music as a form of communication and eco-spirituality is common in the modern century along with increased incidence of autism. The cholesterol depletion leads to bile acid deficiency and generation of small social groups in Neanderthals. Bile acid binds to olfactory receptors and contributes to group identity. This can also contributes to the generation of autistic features in Neanderthals.

The Neanderthal population was predominantly autistic and schizophrenic. The modern population is a hybrid of homo sapiens and homo neanderthalis. This contributes to 10 to 20 per cent dominant hybrids who tend to have schizophrenic and autistic qualities and contributes to creativity of civilisation. The Neanderthals tend to be innovative and chaotic. They tend to be creative in art, literature, dance, spirituality and science. Eighty per cent of less dominant hybrids are stable and contribute to a stabilizing influence leading to growth of civilisation. The homo sapiens were stable and non-creative over a long period of their existence. There was a burst of creativity with generation of music, dance, painting, ornaments, the creation of concept of God and compassionate group behaviour around 10,000 years ago in the homo sapiens community. This correlated with the generation of Neanderthal hybrids when the Eurasian Neanderthal male mated with homo sapiens African females. The extrasensory/quantal perception due to dipolar porphyrins and digoxin induced sodium potassium ATPase inhibition and the generated pumped phonon system mediated quantal perception leads to the globalisation phenomena and feeling of the world being a global village. The archaeal cholesterol catabolism leads to increased synthesis of digoxin. Digoxin promotes tryptophan transport over tyrosine. Tyrosine deficiency leads to dopamine deficiency and morphine deficiency. This leads to a morphine deficiency syndrome in Neanderthals. This contributes to addiction traits and creativity. The increased tryptophan levels

produce increased alkaloids like LSD contributing to ecstasy and spirituality of Neanderthal population. Addictive, ADHD and autistic features are related to the morphine deficiency state. The ketogenic diet consumed by the meat eating Neanderthals leads on to increased generation of hydroxy butyric acid which produces ecstasy and a dissociative type of anaesthesia contributing to the Neanderthal psychology. The dopamine deficiency leads to decreased melanin synthesis and fairness of the population. This was responsible for the fair colour of the Neanderthals.

The Neanderthals were essentially meat eaters taking a ketogenic diet. The acetoacetic acid is converted to acetyl CoA which enters the TCA cycle. When the Neanderthal hybrids consume a glucogenic diet owing to the spread of settled civilisation it produces pyruvate accumulation owing to PDH suppression in Neanderthals. The increased archaeal growth activates the toll receptor and induces HIF alpha resulting in increased glycolysis, PDH suppression and mitochondrial dysfunction - the Warburg phenotype. The pyruvate enters the GABA shunt pathway producing glutamate, ammonia and porphyrins resulting in neuropathology of autism and schizophrenia. Neanderthals consuming a ketogenic diet produces more of GABA an inhibitory neurotransmitter resulting in the docile quiet nature of the Neanderthals. There is less production of glutamate the predominant excitatory neurotransmitter of the prefrontal cortex and consciousness pathways. This leads onto dominance of cerebellar function. The Neanderthal hybrids have cerebellar dominance and less of conscious behaviour. Cerebellum is responsible for intuitive, unconscious behaviour as well as creativity and spirituality. The cerebellum is the site of extrasensory perception, magical acts and hypnosis. The predominant homo sapiens had prefrontal cortex dominance over the cerebellum resulting in more of conscious behaviour.

The neanderthalic brain had predominant quantal perception and extrasensory communication leading to oneness of society. This contributed to a just and equal society with compassion and altruism. This can be thought of as a beginning of a primitive socialistic or communistic society with equal rights for all and sharing of wealth in the community. The archaeal cholesterol metabolism leads to depletion of cholesterol and deficiency of sex hormones. This leads to an asexual state with equality of both males and females or a female dominance. The neoneanderthal society is matriarchal with female leadership and dominance. The dominant extrasensory perception and quantal perception leads to appreciation of the vacancy of the universe and a sense of God. This fulfils the concept of Maya and oneness of everything in the universe according to Hindu philosophy. The vacancy consequent to quantal perception gives a feeling of perception of God. The God concept probably evolved out of this quantal perception. The information stored in the brain functioning as a quantal computer exists as multiple possibilities in multiverse universes. The extinction of one possibility in earth doesn't foreclose the existence of the other possibilities in the quantal state in other universes. This leads to the concept of universal eternal existence and reincarnation described in Hindu philosophy and the illusory nature of death. There is eternal existence in the multiverse quantal universe.

The Neanderthals consuming a glucogenic diet produces increased glycolysis in the setting of PDH inhibition. This produces the Warburg phenotype. The glycolytic intermediate 3-phosphoglycerate is converted to glycine resulting in NMDA excitotoxicity contributing to schizophrenia and autism. Cerebellar dominance is reported in schizophrenia and autism. The cerebellar hyperplasia results in sympathetic hyperactivity and parasympathetic neuropathy. Cerebellar dominance and cerebellar cognitive affective dysfunction can contribute to schizophrenia and autism. The increased porphyrin synthesis resulting from

succinyl CoA generated by GABA shunt and glycine generated by glycolysis contributes to increased extrasensory perception important in schizophrenia and autism. The archaeal cholesterol catabolism generates digoxin which produces sodium potassium ATPase inhibition and increase in intracellular calcium and decrease in intracellular magnesium. The increase in intracellular calcium can modulate the neurotransmitter release from presynaptic vesicles. This can modulate neurotransmission. Digoxin induced magnesium depletion can remove the magnesium block on the NMDA receptor resulting in NMDA excitotoxicity. Digoxin can modulate the glutamatergic thalamo-cortico-thalamic pathway and consciousness resulting in schizophrenia and autism. Digoxin induced magnesium depletion can inhibit reverse transcriptase activity and HERV generation modulating the dynamicity of the genome. Digoxin induced intracellular calcium accumulation and magnesium depletion can modulate G-protein and protein tyrosine kinase dependent neurotransmitter and endocrine receptors. This can produce digoxin induced neuro-immuno-endocrine integration. Digoxin functions as a Neanderthal master hormone.

The actinidic archaea are cholesterol catabolizing and leads to low levels of testosterone and estrogen. This leads on to asexual features and low reproductive rates of the Neanderthal population. The Neanderthals consume a low fibre diet with low lignan content. The actinidic archaea has cholesterol catabolizing enzymes generating more of testosterone than estrogens. This contributes to estrogen deficiency and testosterone overactivity. The Neanderthal population are hypermales with concommitant right hemispheric dominance and cerebellar dominance. Testosterone suppresses left hemispheric function. The high testosterone levels in Neanderthals contribute to a bigger brain. The Neanderthals males as well as females had a higher level of testosterone contributing to gender equality and gender neutral states. There was group identity and group motherhood with no differences between roles of both

males and females. This also resulted in matrilinearity. The higher testosterone levels in males as well as females led to alternate type of sexuality and aberrant behaviour. The homo sapiens eat a high fibre diet with low cholesterol and high lignan content contributing to estrogen dominance, left hemispheric dominance and cerebellar hypoplasia. Homo sapiens had higher reproductive rates and overtook the Neanderthal population resulting in its extinction. The homo sapien population was conservative with normal sexual mores, family values and patriarchal type of behaviour. The role of females the homo sapien community was inferior to males. The increasing generation of Neanderthal hybrids due to climate change mediated archaeal overgrowth leads to gender equality and equidominance of male and female in this century. This is the basis of neoneanderthal matriarchy.

Thus global warming and increased endosymbiotic actinidic archaeal growth leads to cholesterol catabolism and generation of the Warburg phenotype resulting in increased porphyrin synthesis, extrasensory low EMF perception, prefrontal cortex atrophy, insulin resistance and cerebellar dominance. This leads on to neanderthalisation of the body and brain.

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Chapter 3

Climate Change, Global Warming and Alternate Sexual Matrilineal Neoneanderthals

Introduction

Actinidic archaea has been related to global warming and human diseases especially autoimmune disease, neurodegeneration, neuropsychiatric disorder, neoplasm and metabolic syndrome x. The growth of endosymbiotic actinidic archaea in relation to climate change and global warming leads to neanderthalisation of the human mind-body system. Neanderthal anthropometry and metabolonomics has been described in autoimmune disease, neurodegeneration, neuropsychiatric disorder, neoplasm and metabolic syndrome x especially the Warburg phenotype and hyperdigoxinemia. Digoxin produced by archaeal cholesterol catabolism produces neanderthalisation. Prefrontal cortical atrophy and cerebellar hyperplasia has been related to autoimmune disease, neurodegeneration, neuropsychiatric disorder, neoplasm and metabolic syndrome x in this communication. This leads on to dysautonomia with sympathetic hyperactivity and parasympathetic neuropathy in these disorders. Actinidic archaeal related cerebellar dominance leads to changes in brain function.[1-16] The data is described in this paper.

Materials and Methods

Fifteen cases, each of autoimmune disease, neurodegeneration, neuropsychiatric disorder, neoplasm, metabolic syndrome x and internet addicts were selected for the study. Each case had an age and sex matched control. Neanderthal anthropometric and phenotypic measurements which included protruding supra-orbital ridges, dolichocephalic skull, small mandible, prominent mid face and nose, short upper and lower limbs, prominent trunk, low index finger-ring finger ratio and fair complexion were evaluated in the cases study. Autonomic function tests were done to assess the sympathetic and parasympathetic system in each case. CT scan of the head was done to have a

volumetric assessment of the prefrontal cortex and cerebellum. Blood cytochrome F420 activity was assessed by spectrophotometric measurement.

Results

All the case groups studied had higher percentage of Neanderthal anthropometric and phenotypic measurements. There was low index finger-ring finger ratio suggestive of high testosterone levels in all the patient population studied. In all the case groups studied, there also was prefrontal cortex atrophy and cerebellar hyperplasia. Similarly in the all the case groups studied, there was dysautonomia with sympathetic overactivity and parasympathetic neuropathy. Cytochrome F420 was detected in the entire case group studied showing endosymbiotic archaeal overgrowth.

Table 1. *Neanderthal phenotype and systemic disease.*

Disease	Cyt F420	Neanderthal phenotype	Low index finger-ring finger ratio
Schizophrenia	69%	75%	65%
Autism	80%	75%	72%
Alternate sexuality	80%	75%	75%
Internet users	65%	72%	69%

Table 2. *Neanderthal phenotype and brain dysfunction.*

Disease	Dysautonomia	Prefrontal cortex atrophy	Cerebellar hypertrophy
Schizophrenia	65%	60%	70%
Autism	72%	69%	72%
Alternate sexuality	69%	74%	76%
Internet users	74%	84%	82%

Discussion

Neanderthal metabolonomics contribute to the pathogenesis of these disorders. There were Neanderthal phenotypic features in all the case groups studied as well as low index finger-ring finger ratios suggestive of increased testosterone levels. Neanderthalisation of the mind-body system occurs due to increased growth of actinidic archaea as a consequence of global warming. Neanderthalisation of the mind leads to cerebellar dominance and prefrontal cortex atrophy. This leads to dysautonomia with parasympathetic neuropathy and sympathetic hyperactivity.

Global warming and the ice age produces increased growth of extremophiles. This leads to increased growth of actinidic archaeal endosymbiosis in humans. There is archaeal proliferation in the gut which enters the cerebellum and brain stem by reverse axonal transport via the vagus. The cerebellum and brain stem can be considered as an archaeal colony. The archaea are cholesterol catabolizing and use cholesterol as a carbon and energy source. The actinidic archaea activates the toll receptor HIF alpha inducing the Warburg phenotype resulting in increased glycolysis with generation of glycine as well as pyruvate dehydrogenase suppression. The accumulated pyruvate enters the GABA shunt generating of succinyl CoA and glycine. The archaeal catabolism of cholesterol produces ring oxidation and generation of pyruvate which also enters the GABA shunt scheme producing glycine and succinyl CoA. This leads to increased synthesis of porphyrins. In the setting of digoxin induced sodium potassium ATPase inhibition the dipolar porphyrins produce a pumped phonon system resulting in the Frohlich model Bose-Einstein condensate and quantal perception of low level EMF. Low level EMF pollution is common with internet usage. Perception of low level of EMF leads to neanderthalisation of the brain with prefrontal cortex atrophy and cerebellar hyperplasia. The archaea which reaches the cerebellum from the gut via the vagus nerve proliferates and

makes the cerebellum dominant with resultant suppression and atrophy of the prefrontal cortex. This leads to wide spread autistic and schizophrenic traits in population. The actinidic archaea induces the Warburg phenotype with increased glycolysis, PDH inhibition and mitochondrial suppression. This produces neanderthalisation of the mind-body system. The actinidic archaea secretes RNA viroids which block HERV expression by RNA interference. The HERV suppression contributes to the inhibition of prefrontal cortex development in Neanderthals and cerebellar dominance. Archaeal digoxin produces sodium potassium ATPase inhibition and magnesium depletion causing reverse transcriptase inhibition and decreased generation of HERV. The HERV contributes to the dynamicity of the genome and are required for the development of the prefrontal cortex. The HERV suppression contributes to retroviral resistance in Neanderthals. The actinidic archaea catabolises cholesterol leading to cholesterol depleted state. Cholesterol depletion also leads to poor synaptic connectivity and decreased development of prefrontal cortex. This is not genetic change but a form of symbiotic change with endosymbiotic actinidic archaeal growth in the body and brain.

Internet use and low level EMF pollution is common in this century. This results in increased low level EMF perception by the brain by the digoxinporphyrin mediated pumped phonon system created Bose-Einstein condensates contributing to prefrontal cortex atrophy and cerebellar dominance. Cerebellar dominance leads to schizophrenia and autism. There is an epidemic of autism and schizophrenia in the present day community. The porphyrin mediated extrasensory perception can contribute to communication among Neanderthals. Neanderthals did not have a language and used extrasensory perception as a form of group communication. Because of dominant extrasensory quantal perception, the Neanderthals did not have individual identity but only group identity. Cerebellar dominance results in creativity

consequent to quantal perception and group perception. The Neanderthalic traits contribute to innovation and creativity. Cerebellar dominance results in development of a symbolic language. The Neanderthals used dance and music as a form of communication. Painting as a form of communication was also common in Neanderthals. Neanderthal behaviour was robotic. Robotic behaviour is characteristic of cerebellar dominance. Robotic, symbolic and ritualistic behaviour is common with cerebellar dominance and is seen in autistic traits. The cerebellar dominance in Neanderthals leads to intuitive intelligence and a hypnotic quality to communication. The increased extrasensory quantal perception leads to more communion with nature and a form of eco-spirituality. The increasing use of dance and music as a form of communication and eco-spirituality is common in the modern century along with increased incidence of autism. The cholesterol depletion leads to bile acid deficiency and generation of small social groups in Neanderthals. Bile acid binds to olfactory receptors and contributes to group identity. This can also contributes to the generation of autistic features in Neanderthals.

The Neanderthal population was predominantly autistic and schizophrenic. The modern population is a hybrid of homo sapiens and homo neanderthalis. This contributes to 10 to 20 per cent dominant hybrids who tend to have schizophrenic and autistic qualities and contributes to creativity of civilisation. The Neanderthals tend to be innovative and chaotic. They tend to be creative in art, literature, dance, spirituality and science. Eighty per cent of less dominant hybrids are stable and contribute to a stabilizing influence leading to growth of civilisation. The homo sapiens were stable and non-creative over a long period of their existence. There was a burst of creativity with generation of music, dance, painting, ornaments, the creation of concept of God and compassionate group behaviour around 10,000 years ago in the homo sapiens community. This correlated with the generation of Neanderthal hybrids when the Eurasian

Neanderthal male mated with homo sapiens African females. The extrasensory/quantal perception due to dipolar porphyrins and digoxin induced sodium potassium ATPase inhibition and the generated pumped phonon system mediated quantal perception leads to the globalisation phenomena and feeling of the world being a global village. The archaeal cholesterol catabolism leads to increased synthesis of digoxin. Digoxin promotes tryptophan transport over tyrosine. Tyrosine deficiency leads to dopamine deficiency and morphine deficiency. This leads to a morphine deficiency syndrome in Neanderthals. This contributes to addiction traits and creativity. The increased tryptophan levels produce increased alkaloids like LSD contributing to ecstasy and spirituality of Neanderthal population. Addictive, ADHD and autistic features are related to the morphine deficiency state. The ketogenic diet consumed by the meat eating Neanderthals leads on to increased generation of hydroxy butyric acid which produces ecstasy and a dissociative type of anaesthesia contributing to the Neanderthal psychology. The dopamine deficiency leads to decreased melanin synthesis and fairness of the population. This was responsible for the fair colour of the Neanderthals.

The Neanderthals were essentially meat eaters taking a ketogenic diet. The acetoacetic acid is converted to acetyl CoA which enters the TCA cycle. When the Neanderthal hybrids consume a glucogenic diet owing to the spread of settled civilisation it produces pyruvate accumulation owing to PDH suppression in Neanderthals. The increased archaeal growth activates the toll receptor and induces HIF alpha resulting in increased glycolysis, PDH suppression and mitochondrial dysfunction - the Warburg phenotype. The pyruvate enters the GABA shunt pathway producing glutamate, ammonia and porphyrins resulting in neuropathology of autism and schizophrenia. Neanderthals consuming a ketogenic diet produces more of GABA an inhibitory neurotransmitter resulting in the docile quiet nature of the

Neanderthals. There is less production of glutamate the predominant excitatory neurotransmitter of the prefrontal cortex and consciousness pathways. This leads onto dominance of cerebellar function. The Neanderthal hybrids have cerebellar dominance and less of conscious behaviour. Cerebellum is responsible for intuitive, unconscious behaviour as well as creativity and spirituality. The cerebellum is the site of extrasensory perception, magical acts and hypnosis. The predominant homo sapiens had prefrontal cortex dominance over the cerebellum resulting in more of conscious behaviour.

The Neanderthals consuming a glucogenic diet produces increased glycolysis in the setting of PDH inhibition. This produces the Warburg phenotype. There is increased lymphocytic glycolysis producing autoimmune diseases and immune activation. The increased levels of GAPD result in nuclear cell death and neurodegeneration. The predominance of glycolysis and suppression of mitochondrial function results in glycemia and metabolic syndrome x. The increased mitochondrial PT pore hexokinase leads to cell proliferation and oncogenesis. The glycolytic intermediate 3-phosphoglycerate is converted to glycine resulting in NMDA excitotoxicity contributing to schizophrenia and autism. Cerebellar dominance is reported in schizophrenia and autism.

The cerebellar hyperplasia results in sympathetic hyperactivity and parasympathetic neuropathy. This contributes to cell proliferation and oncogenesis. Vagal neuropathy results in immune activation and autoimmune disease. Vagal neuropathy and sympathetic overactivity can contribute to glycogenolysis and lipolysis resulting in metabolic syndrome x. Cerebellar dominance and cerebellar cognitive affective dysfunction can contribute to schizophrenia and autism. The increased porphyrin synthesis resulting from succinyl CoA generated by GABA shunt and glycine generated by glycolysis contributes to increased extrasensory perception important in schizophrenia and

autism. Sympathetic overactivity and parasympathetic neuropathy can contribute to neurodegeneration.

The archaeal cholesterol catabolism generates digoxin which produces sodium potassium ATPase inhibition and increase in intracellular calcium and decrease in intracellular magnesium. The increase in intracellular calcium produces oncogene activation and NFKB activation resulting in malignancies and autoimmune diseases. The increase in intracellular calcium opens the mitochondrial PT pore resulting in cell death and neurodegeneration. The increase in intracellular calcium can modulate the neurotransmitter release from presynaptic vesicles. This can modulate neurotransmission. Digoxin induced magnesium depletion can remove the magnesium block on the NMDA receptor resulting in NMDA excitotoxicity. Digoxin can modulate the glutamatergic thalamo-cortico-thalamic pathway and consciousness resulting in schizophrenia and autism. Digoxin induced magnesium depletion can inhibit reverse transcriptase activity and HERV generation modulating the dynamicity of the genome. Digoxin induced intracellular calcium accumulation and magnesium depletion can modulate G-protein and protein tyrosine kinase dependent neurotransmitter and endocrine receptors. This can produce digoxin induced neuro-immuno-endocrine integration. Digoxin functions as a Neanderthal master hormone.

The actinidic archaea are cholesterol catabolizing and leads to low levels of testosterone and estrogen. This leads on to asexual features and low reproductive rates of the Neanderthal population. The Neanderthals consume a low fibre diet with low lignan content. The actinidic archaea has cholesterol catabolising enzymes generating more of testosterone than estrogens. This contributes to estrogen deficiency and testosterone overactivity. The Neanderthal population are hypermales with concommitant right hemispheric dominance and cerebellar dominance. Testosterone suppresses left hemispheric

function. The high testosterone levels in Neanderthals contribute to a bigger brain. The Neanderthals males as well as females had a higher level of testosterone contributing to gender equality and gender neutral states. There was group identity and group motherhood with no differences between roles of both males and females. This also resulted in matrilinearity. The higher testosterone levels in males as well as females led to alternate type of sexuality and aberrant behaviour. The homo sapiens eat a high fibre diet with low cholesterol and high lignan content contributing to estrogen dominance, left hemispheric dominance and cerebellar hypoplasia. Homo sapiens had higher reproductive rates and overtook the Neanderthal population resulting in its extinction. The homo sapien population was conservative with normal sexual mores, family values and patriarchal type of behaviour. The role of females the homo sapien community was inferior to males. The increasing generation of Neanderthal hybrids due to climate change mediated archaeal overgrowth leads to gender equality and equidominance of male and female in this century.

The cholesterol catabolism results in cholesterol depletion and bile acid deficiency. Bile acids bind to VDR and are immunomodulatory. Bile acid deficiency leads to immune activation and autoimmune disease. Bile acids bind to FXR, LXR and PXR modulating lipid and carbohydrate metabolism. This leads to metabolic syndrome x in the presence of bile acid deficiency. Bile acid uncouples oxidative phosphorylation and its deficiency leads to obesity of metabolic syndrome x. Bile acids bind to olfactory receptors and are important in group identity. Bile acid deficiency leads to formation of small social groups in Neanderthals and genesis of autism. Cholesterol depletion also leads to vitamin D deficiency. Vitamin D binds to VDR and produces immunomodulation. Vitamin D deficiency leads to immune activation and autoimmune diseases. Vitamin D deficiency can also produce rickets and contribute to the phenotypic features of Neanderthals. Vitamin D deficiency can

contribute to brain development resulting in macrocephaly. Vitamin D deficiency contributes to insulin resistance and truncal obesity of Neanderthals. Vitamin D deficiency contributes to the fairness of the Neanderthal skin as a phenotypic adaptation. The Neanderthal phenotypic features are due to vitamin D deficiency and insulin resistance.

Thus global warming and increased endosymbiotic actinidic archaeal growth leads to cholesterol catabolism and generation of the Warburg phenotype resulting in increased porphyrin synthesis, extrasensory low EMF perception, prefrontal cortex atrophy, insulin resistance and cerebellar dominance. This leads on to neanderthalisation of the body and brain.

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Chapter 4

The Surrealistic, Syntheistic, Asexual Brain - Relation to Climate Change, Internet Exposure and Neanderthalisation of Brain - Evolution of Homo Neoneanderthalis

Introduction

Previous studies from this laboratory have demonstrated increased symbiotic archaeal growth consequent to global warming. Previous studies have shown low level of EMF pollution leading to increased archaeal growth. The netocrats and netizens are exposed to continuous low level of EMF pollution. The archaea contains magnetite and can catabolize cholesterol to generate porphyrins. Digoxin can produce sodium potassium ATPase inhibition and a pumped phonon system acting through dipolar magnetite and porphyrins to generate a Frohlich model of Bose-Einstein condensate. This can produce quantal perception. The archaeal magnetite and porphyrins can produce increased perception of low level of EMF leading onto prefrontal cortex atrophy and cerebellar hypertrophy. This can lead onto neanderthalisation of the brain. This leads onto dominance of cerebellar cognitive function as has been reported earlier from this laboratory. The prefrontal cortex atrophy can lead onto extinction of rationalization and reason producing a state of transcendence. This is the basis of surrealism. The brain quantal fields can modulate the low level EMF fields in the internet and the interaction can alter internet function and the quantal fields of other brain operating the internet. The interactive quantal fields of the human brain and the low level EMF quantal fields of the internet form one single whole functioning as a universal collective unconscious, the basis of synthesim. Syntheism is a philosophical idea where the humanity creates God as opposed to the monotheistic religious ideal of God creating humanity. The paper explores the link between neanderthalisation, archaeal growth and surrealism/syntheism.[1-16] The results are discussed in this paper.

Materials and Methods

Fifteen netizens/netocrats were selected for the study. Each netizen had an age and sex matched control. Blood cytochrome F420 activity was assessed by spectrophotometric measurement.

Results

Cytochrome F420 was detected in the entire case group studied showing endosymbiotic archaeal overgrowth.

Table 1. *Cytochrome F420 in internet exposure.*

	Cyt F420 activity
Normal	6%
Netizens	65%

Discussion

The widespread use of the internet is ubiquitous. The internet-human mind interaction has been described in a previous report from this laboratory. The low level of EMF produced by the internet can modulate brain function. Low level of EMF can induce porphyrin synthesis by actinidic archaeal symbionts in the brain. Porphyrins are dipolar molecules and in the setting of archaeal digoxin induced sodium potassium ATPase inhibition can generate a pumped phonon system and Frohlich model of Bose-Einstein condensates. These porphyrin mediated Bose-Einstein condensate can mediate quantal perception. The brain quantal fields can modulate the low level EMF fields in the internet and the interaction can alter internet function and the quantal fields of other brain operating the internet. The interactive quantal fields of the human brain and the low level EMF quantal fields of the internet form one single whole functioning as a universal collective unconscious. There are 7 billion users of the internet. The collective unconscious created by interaction of brain quantal fields with

internet low EMF fields functions as a virtual matrix on which the world is structured. There are thought controlled robotic computers which can perform human functions. The human thought creates a communicative order which alters the brain EEG and can issue a computer modulated order of the brain's thought process.[1-16]

Syntheism is a philosophical idea where the humanity creates God as opposed to the monotheistic religious ideal of God creating humanity. The quantal fields of multiple brains interacting with each other and internet roughly fit in with the idea of God or the Holy Spirit. This fits in with Buddhist philosophy. The Buddhist philosophy is atheistic and describes samsaras or states of mind occurring in quick succession with the idea of karma modulating the next state of the human mind in symbiotic communication with other minds. This roughly is the Buddhist idea of the controlling force of the universe. The quantal world of the human brain in communication with other brains and in interaction with the low level EMF quantal fields of the internet fits in with this proposition of samsaras. It creates an idea of universal globalised world of oneness which can be described as equivalent to God. The internet can be considered as great equalizer and creates a oneness of the human quantal brain all over the earth and other possible functioning brains in the universe. The quantal world becomes the particulate world by the act of observation. The human quantal brains in communication with each other and the low level EMF quantal fields of the internet creates the particulate observable world.[1-16]

The widespread use of the internet produces low level of EMF exposure to the human brain. This produces prefrontal cortex atrophy and cerebellar dominance. The prefrontal cortex is the site of the logic, reasoning and commonsense. The atrophy of the prefrontal cortex leads to cerebellar dominance of brain cognitive function. It becomes an impulsive world guided by the senses. The world of the senses comes into existence. The cerebellar

dominance leads to an ataxic syndrome producing ataxia of speech and motor function. Ataxia of speech leads to evolution of music of the rock type which dominates the modern world. The ataxia of motor function leads to rhythmic dance as the guiding force of life. The ataxia of motor function also leads to abstract painting. The world gets dominated by rock/pop dance, music and art. The exposure to low level of EMF from the internet leads to increased dipolar porphyrin synthesis and quantal perception. The increased quantal perception leads to more increased interaction with the low level quantal EMF fields of the internet making the internet world as the real world and outside world as virtual. The increased quantal perception of the brain leads to a sense of spirituality and oneness of the world. The increased quantal perception leads to a communication between the brain quantal fields and the quantal fields of the environment leading to the concept of eco-spirituality. The consuming world comes to an end and a world of sharing begins. The increased quantal perception also leads to a feeling of oneness in the population producing an idea of the socialistic idealistic society and demise of the capitalistic society. The increased quantal perception leads to gender equality and the dominance of unisexuality in society. This is exemplified by the festivals of the burning man and the burning nest.[1-16]

The netocratic state can also produce changes in brain function. The increased exposure to low level of EMF produces prefrontal cortex atrophy and cerebellar dominance. This leads onto neanderthalisation of the brain. The increased exposure to low level of EMF produces increased archaeal growth, cholesterol catabolism and digoxin synthesis. Digoxin can modulate brain and body function on exposure to low level of EMF. Low level of EMF exposure also produces increased porphyrin synthesis which can lead onto increased digoxin mediated dipolar porphyrin modulated Frohlich model of pumped phonon system.[1-16]

The online world is the real world for netizens and the real world is a reflection of the online world. Value is a social mode created in the network online. Netocracy creates a new elite. It creates a new religion of atheistic mysticism. The netocratic world affects politics producing a movement for equality. The recent social media generated revolutions include the Arab spring and jasmine revolution.[1-16]

Netocratic state can produce a new social order. There is a sense of equality due to quantal perception producing ideas of socialism, communism, anarchy and gender equality. The quantal perception mediated feeling of oneness will spell the death of the capitalistic state. There is also feeling of gender equality, asexuality and alternate sexuality. The quantal perception mediated sense of oneness leads onto a more democratic state. The quantal perception also produces universal oneness and spirituality. Netocratic state produces a participatory culture. It produces the global empire and a global virtual society where the mind is constituted by the online net and body becomes a machine. This produces an anticartesian view of the world. The old political conflicts and ideologies get replaced by netocratic state fuelled by a communication revolution. The internet functions as a sensory extension of the human brain. [1-16]

The increased low level quantal EMF fields of the internet produces increased growth of extremophilic actinidic archaea in the brain and human body. The symbiotic archaea synthesises more porphyrins. The archaeal magnetite and porphyrins can mediate increased quantal perception and interaction with the low level EMF fields of the internet. Thus the wide spread use of the internet leads to a society with increased quantal perception and interaction with the internet. The low level quantal EMF fields of the internet affects the brain producing neanderthalisation of the brain. The prefrontal cortex becomes small and the cerebellum hypertrophies producing an occipital bun. The brain becomes more creative, autistic, impulsive, addictive, attention deficit

and schizophrenic. Such brains produce behavior which is chaotic, anarchic and non-hierarchal. There is globalisation of the world. Religions, nation-states, individuality and family cease to have much relevance. This becomes the globalised quantal world of oneness and equality - the world of samsaras.[1-16]

The netocratic state can produce human pathology. Exposure to low level of EMF pollution increases endosymbiotic archaeal growth and digoxin synthesis from cholesterol. Digoxin produces membrane sodium potassium ATPase inhibition and low level of EMF exposure can lead to increased porphyrin synthesis. Increased intracellular calcium and porphyrins can produce cell death/degeneration, immune activation/autoimmune disease, mitochondrial dysfunction/metabolic syndrome x and neuropsychiatric disorders like autism and schizophrenia. It leads to an epidemic of civilisational disease.[1-16]

The cholesterol catabolism leads to phenolisation of the cholesterol ring producing increased synthesis of monoamine neurotransmitters dopamine and serotonin. This leads to schizophrenia, autism and ADHD. This also produces la tourette syndrome with coprolalia, OCD, vocal and motor tics. The synchronization of motor and vocal tics leads onto the evolution of language. The internet language used by netizens can be compared to a synchronized motor and vocal tic as it is short and agrammatical. Thus the netocratic state results in the generation of new human species - Neanderthal hybrids.[1-16]

The internet revolution and netocratic state leads onto the death of the individual and the generation of a social individual. This produces as said before prefrontal cortex atrophy and cerebellar dominance. This leads onto the annihilation of the rational individual. The world of logic, reason, understanding and order comes to an end. The increased synthesis of dopamine and an epidemic la tourette syndrome leads to ritualisation of behaviour, obsessive behaviour, uniformity and creativity. The world of quantal perception leads onto the sacredness of social existence. Collective ritualized behaviour becomes the

norm. The world enters the realm of senses. The world of quantal perception leads to nihilistic state, nothingness and negativity. This contributes to surrealistic world Breton and Bataille and the deconstructed world of Derrida. This produces what can be called as the surrealistic brain. The world is chaotic, anarchic, ugly and barbarous. Terrorism and criminality raises its ugly head producing the ugly revolution as it helps to transcend reality. The unconscious experience dominates and the conscious experience is shut out. There is no contradiction between dream and reality. There is a rejection of reason and a return to the world of archetypes. The political surrealistic world is Trotskyist, anarchic and communist. The artistic world is represented by the cubist paintings of Picasso and Dali and the world of modern art. Abstract painting, poetry, abstract dance becomes the norm. There is gender equality, feminism and rumblings of alternate sexuality. The atrophy of the prefrontal cortex and cerebellar dominance leads onto a state of psychic automatism and the dominance of unconscious experience. The epidemic la tourette syndrome leads to ritualism, obsession, criminality, cruelty and terrorism. The human beings enter the world of archetypes.[1-16]

The global warming leads to increased archaeal growth. The archaea can catabolize the cholesterol ring using ring oxidase to generate porphyrins. The archaea also contains magnetite. In the setting of digoxin induced membrane sodium potassium ATPase inhibition the dipolar magnetite and porphyrins can produce a pumped phonon system mediated Frohlich model of Bose-Einstein condensate. This can increase the brain quantal perception of low level EMF which again leads to increased archaeal growth. The increased quantal perception of low level of EMF leads to prefrontal cortex atrophy and cerebellar dominance. The archaeal cholesterol catabolism generates a phenolic ring from the cholesterol molecule synthesizing dopamine. This leads to an excess monoamine neurotransmitters. Thus there is an epidemic frontal lobe syndrome,

cerebellar syndrome, la tourette disease, ADHD, schizophrenia and autism. Such a population of Neanderthal hybrids is creative. This produces ritualized, obsessive, coprolalic, attention deficit, obscene, grotesque and sexually anarchic behaviour. This helps to transcend reality as the frontal lobe concerned with rationalization, judgment and reasoning is dysfunctional. The same function of transcending reality by a dysfunctional frontal lobe also occurs in terrorism and criminal behaviour. The society becomes increasingly impulsive. The frontal lobe dysfunction and quantal perception helps to transcend reality and produces self realization and spirituality. The cerebellar dysfunction produces an ataxic syndrome with motor ataxia leading onto dance forms and abstract painting and ataxia of speech leads to rock music. The dopamine excess leads onto a motor and vocal tic which when synchronized produces language and evolution of literature. The coprolalia and obscene tics of la tourette disease leads to the ugliness and obscenities in modern literature, music, painting and dance. There is massive ritualized behaviour in society. Terrorism is a ritualized behaviour which helps to transcend reality due to a frontal lobe dysfunction and tourette disease. It can be considered as modern form of ritualized cannibalism. The realm of the senses dominates and there is rejection of reason and rationality. Dreams and reality merged together. It produces a psychedelic, art, literature and music. This produces what can be called as the acephalic state mimicking the acephalic society of Bataille, the originator of surrealistic philosophy. This leads onto the evolution of an acephalic new human species homo neoneanderthalis.[1-16]

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Chapter 5

The Archaeal Induced Stem Cell Conversion Produces an Epidemic Benjamin Buttons Reverse Aging Syndrome Leading to Alternate Sexuality, Neuropsychiatric Diseases and a Spiritual, Surrealistic Evil Brain

Introduction

The global warming produces increased acidity and atmospheric carbon dioxide resulting in extremophilic archaeal symbiosis in humans. The archaeal symbiosis results in neanderthalisation of humans. The archaea induced uncoupling proteins producing the primitive Warburg phenotype and stem cell metabolonomics. The archaeal metabolites of cholesterol digoxin, bile acids and short chain fatty acids induce uncoupling proteins. The lysosomal enzymes a marker of stem cell conversion are markedly increased along with genesis of the archaeal phenotype in metabolic syndrome x, degenerations, autoimmune diseases, cancer, schizophrenia and autism. In all these systemic diseases there is somatic cell transformation to stem cell and lose of function. The neurons become immature and lose their dendritic spines and connectivity. This results in loss of neuronal function and reversion to archaeal magnetite mediated extrasensory perception of low level of EMF. Exposure to low level of EMF results in brain changes. This results in prefrontal cortex atrophy. The primitive brain areas of cerebellum and brain stem become hypertrophic. The somatic and neuronal cell proliferates and there is neanderthalisation of the brain and body.[1-17]

The idea of goodness is based on reason and logic. Reason judgment and logic is a function of the cerebral cortex especially the prefrontal lobe. Prefrontal lobe function needs dynamic synaptic connectivity which is produced by jumping genes mediated by human endogenous retroviral sequences. Goodness is correlated with heaven. The idea of evil is based on the unconscious and the impulsive behaviour related to subcortical areas especially the cerebellum. The cerebellum is the site of impulsive behaviour and the unconscious behaviour. The cerebellar and subcortical brain connections are predominantly archaeal colony networks. The idea of evil is related to hell. The idea of conscious judgmental acts and unconscious impulsive acts, heaven and

hell, goodness and evil are juxtapositions. The global warming and exposure to low level of EMF leads to actinidic archaeal growth in the brain and increased archaeal magnetite mediated perception of low level of EMF. This leads to prefrontal cortex atrophy and cerebellar dominance. The conscious becomes minimal and unconscious brain takes over. The study assessed archaeal growth as assessed by cytochrome F420 activity and stem cell type metabolonomics in systemic diseases, neuropsychiatric disorders and normal individuals with differing psychological profile - prisoners, creative individuals and common sense modulated business men.[1-17] The results are presented in this paper.

Materials and Methods

The blood samples were drawn from four groups of psychological different population with the following characters - alternate sexuality, spiritually inclined, criminal prisoners, creative artists and business men. There were 15 members in each group. The blood samples were also drawn from 15 cases each of schizophrenia and autism. The estimations done in the blood samples collected include cytochrome F420 activity. Blood lactate, pyruvate, hexokinase, cytochrome C, cytochrome F420, digoxin, bile acids, butyrate and propionate were estimated.

Results

The results showed that the spiritual, artistic creative individuals and criminal prisoners had increased cytochrome F420 activity and RBC digoxin levels. The results showed that the businessmen had decreased cytochrome F420 activity and RBC digoxin levels. The blood samples of Alzheimer's disease, autoimmune disease - SLE, cancer - brain glioma, schizophrenia and autism had increased blood lactate and pyruvate, increased RBC hexokinase, increased serum cytochrome C and serum cytochrome F420, increased serum digoxin,

bile acids, butyrate and propionate. The disease state had increased cytochrome F420 activity. The serum cytochrome C levels in the blood were increased. This suggested mitochondrial dysfunction. There was an increased in glycolysis as suggested by increased RBC hexokinase activity and lactic acidosis. Owing to the mitochondrial dysfunction and pyruvate dehydrogenase inhibition there was pyruvate accumulation. The pyruvate was converted to lactate by the Cori cycle and also to glutamate and ammonia. This metabolism is suggestive of the Warburg phenotype and stem cell conversion. The stem cells depend on Warburg anaerobic glycolysis for energetics and have a mitochondrial dysfunction. The lysosomal enzyme beta galactosidase activity was increased in the disease group and in creative artists and criminals suggesting stem cell conversion. This suggests that artistic creative, criminal prisoners as well as spiritual individuals tend to have stem cell metabolonomics and stem cell conversion.

Table 1

Group	Cytochrome F420		Serum Cyto C (ng/ml)		Lactate (mg/dl)		Pyruvate (umol/l)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal population	1.00	0.00	2.79	0.28	7.38	0.31	40.51	1.42
Spiritual	4.00	0.00	12.39	1.23	25.99	8.10	100.51	12.32
Acquisitive capitalist	0.00	0.00	1.21	0.38	2.75	0.41	23.79	2.51
Artistic	4.00	0.00	12.84	0.74	23.64	1.43	96.19	12.15
Criminality	4.00	0.00	12.72	0.92	25.35	5.52	103.32	13.04
Schizo	4.00	0.00	11.58	0.90	22.07	1.06	96.54	9.96
Autism	4.00	0.00	12.48	0.79	21.95	0.65	92.71	8.43
Alternate Sexuality	4.00	0.00	12.79	1.15	23.69	2.19	91.81	4.12
Low level background radiation	4.00	0.00	12.26	1.00	23.31	1.46	103.28	11.47
F value	0.001		445.772		162.945		154.701	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 2

Group	RBC Hexokinase (ug glu phos / hr/mgpro)		ACOA (mg/dl)		Glutamate (mg/dl)		Se. Ammonia (ug/dl)	
	Mean	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**
Normal population	1.66	0.45	8.75	0.38	0.65	0.03	50.60	1.42
Spiritual	5.46	2.83	2.51	0.36	3.19	0.32	93.43	4.85
Acquisitive capitalist	0.68	0.23	16.49	0.89	0.16	0.02	23.92	3.38
Artistic	10.12	1.75	2.51	0.42	3.11	0.36	92.40	4.34
Criminality	9.44	3.40	2.19	0.19	3.27	0.39	95.37	5.76
Schizo	7.69	3.40	2.51	0.57	3.41	0.41	94.72	3.28
Autism	6.95	2.02	2.42	0.41	3.30	0.32	94.01	5.00
Alternate Sexuality	8.68	2.60	2.01	0.08	3.30	0.48	98.81	15.65
Low level background radiation	7.58	3.09	2.14	0.19	3.47	0.37	102.62	26.54
F value	18.187		1871.04		200.702		61.645	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 3

Group	RBC digoxin (ng/ml RBC Susp)		Beta galactosidase activity in serum (IU/ml)	
	Mean	**± SD**	**Mean**	**± SD**
Normal population	0.58	0.07	17.75	0.72
Spiritual	1.41	0.23	55.17	5.85
Acquisitive capitalist	0.18	0.05	8.70	0.90
Artistic	1.40	0.32	46.37	4.87
Criminality	1.51	0.29	47.47	4.34
Schizo	1.38	0.26	51.17	3.65
Autism	1.19	0.24	52.87	7.04
Alternate Sexuality	1.34	0.25	47.28	3.55
Low level background radiation	1.41	0.30	51.01	4.77
F value	60.288		194.418	
P value	< 0.001		< 0.001	

Discussion

The systemic diseases and neuropsychiatric disorders tend to have a predominant anaerobic glycolytic metabolism and mitochondrial oxidative phosphorylation is suppressed. The metabolism is similar to the metabolism of the stem cell. The pyruvate and lactate levels are increased with a decrease in acetyl coenzyme A and ATP. The glycolytic pathway and hexokinase is increased. This indicates a Warburg phenotype depending upon anaerobic glycolysis for energetics. The lysosomal enzymes beta galactosidase a stem cell marker is increased. The cytochrome F420 is also increased as well as the archaeal catabolite digoxin which suppresses sodium potassium ATPase. Bacteria and archaea are supposed to induce stem cell transformation. The induction of uncoupling proteins leads to stem cell transformation. The uncoupling proteins inhibit oxidative phosphorylation and the substrates are directed to anaerobic glycolysis. Digoxin by inhibiting sodium potassium ATPase can increase intracellular calcium, induce mitochondrial permeability transient pore function and uncouple oxidative phosphorylation. The side chain of cholesterol is catabolized by archaea to butyric acid and propionic acid which uncouple oxidative phosphorylation. The archaeal side chain hydroxylase convert cholesterol to bile acids which uncouple oxidative phosphorylation. Thus archaeal symbiosis in the cell results in cholesterol catabolism and the catabolites digoxin, bile acids and short chain fatty acids uncouple oxidative phosphorylation, inhibit mitochondrial function and promote anaerobic glycolysis. The conversion of somatic cells to stem cell helps in archaeal persistence within the cell and symbiosis. Mycobacterium leprae infection can convert Schwann cells to stem cells. Archaeal infection produces somatic cell conversion to stem cells for archaeal persistence. The conversion to stem cell results in proliferation and loss of function resulting in systemic disease and

neuropsychiatric disorders. Stem cell conversion of neurons and loss of function results in development of a new psychological phenotype.[1-17]

The systemic and neuronal cell in metabolic syndrome x, cancer, autoimmune disease, degenerations, schizophrenia and autism behaves like the stem cell. It is plausible to hypothesise a somatic cell conversion to stem cell in these disorders. The differentiated cells by archaeal induction get converted to stem cell. The stem cell is a immature cell with loss of function. The neurons lose their dendritic spines and loss of connectivity. The brain function becomes primitive. The neurons are adendritic and disconnected. This results in complex brain structures like the modern cerebral cortex and prefrontal cortex atrophy. The primitive parts of the brain the brain stem and cerebellum hypertrophies. This results in neanderthalisation of the brain with a prominent occipital bun and atrophied prefrontal cortex. The prefrontal cortex atrophy results in loss of logic, judgment, reasoning and executive functions. The hypertrophy of the cerebellum and brain stem results in dominance of impulsive behaviour. The difference between reality and dreams is lost. The brain is ruled by the senses and impulses. The brain becomes dysfunctional with more of violent, aggressive and cannibalistic behaviour. The art becomes more abstract and related to the unconscious. The world of the unconscious brain with its archetypes takes over. There is loss of the world of reasoning, logic and judgment. It is a world of impulsiveness in which primitive tendencies with relation to the unconscious becomes dominant. This produces more of ritualized behaviour, violent and aggressive tendencies, terrorism, war, sexual obscenities and alternate sexuality. It is a world of the senses. It is also intensely evil as well as spiritual. The inhibition of the conscious due to loss of cortical functions and the dominance of the unconscious leads to mystical experience. There is a overflowing of spirituality. The paradoxical side of this behaviour also dominates. The violence, aggression, obsessive sexuality, magic realism in

literature, abstract painting, rock music and dance and modern poetry as well as literature produces transcedence of a different kind. This results in surrealism and syntheism. The loss of function of the neurons results in schizophrenia, autism and degenerations. The increased archaeal induced proliferation of stem cells results in a big sized brain and trunk as in Neanderthals. This archaeal symbiosis produces neanderthalisation and a stem cell syndrome. This produces reverse aging which can be called as an epidemic Benjamin Button syndrome. The lymphocytic stem cells have uncontrolled proliferation and results in autoimmune diseases. The stem cell proliferation results in oncogenesis. The stem cell metabolonomics with inhibited mitochondrial function and anaerobic glycolysis results in metabolic syndrome x. Stem cell markers are increased in schizophrenia and autism and the neurons lack dendritic spines. Stem cell markers are also increased in autoimmune disease. The diabetic metabolism is akin to stem cell metabolism. The cancer cell behaves like the stem cell.[1-17]

In the metaphysics of evil the unconscious dominates and the behaviour is impulsive dictated by primitive thoughts. The unconscious modulated by the cerebellum is responsible for automatic acts producing what is called as psychic automatism. The unconscious parallels what Jung described as the archetypes of the collective unconscious. The metaphysics of evil leads to a syntheistic brain with the dominance of the willpower. The primitive archetypes produce concepts of abstract painting, psychedelic music and dance and postmodern literature or magical realism. All these are modes of connecting with the unconscious. The unconscious produces primitive selfish tendencies leading to individualism and capitalism. The unconscious helps to transcend taboos and creates the surrealistic world. The collective unconscious also produces a sense of spirituality and oneness. It is an impulsive brain with fixations and primitive obsessions. There is cerebellar psychic automatism. This leads to ritualized behaviours. The dominance of the collective unconscious results in ritualized

behaviours characteristic of religious worship. The collective unconscious also leads to the creation of obscene art and literature as well as violence which is a form of trancedence. Coprolalic religious ritual ceremonies had been described in some parts of the world. Terrorism and acts of violence are also a type of trancedence. The same phenomena occur in ritual sacrifices in religion, the violence of war and the acquisitiveness of capitalism. The primitive unconscious leads to the will to power. This produces greedy capitalism, dictatorship and fascism. The will to power results in worship of the powerful. It is an individualistic, anarchic, selfish world. The cerebellar world is the primitive world of archetypes in the collective unconscious. The abstract paintings have links with the collective unconscious. The rock music or modern music contains rhythmic primitive chaotic sounds coming out the collective unconscious. The primitive collective unconscious links up post modern literature or magic realism with violence, love, hate, evil, obscenities and death. Thus literature, music, dance and painting helps to overcome reality and rationality producing transcendence. The unconscious brain is formed of an archaeal colony network and is adynamic and inflexible. There is an epidemic of autism and schizophrenia. The loss of function of neurons leads to increased extrasensory perception via archaeal magnetite. This can lead to the lack of development of speech and ritualized behaviours of autism. This also produces the thought disorder, hallucinations and delusions of schizophrenia. It looks like an epidemic cerebellar cognitive, affective disorder.[1-17]

The goodness is related to conscious brain localized in the cortical areas. The cortical areas mediate moralistic, functionally atheistic, civil society behaviour. The civil society depends upon common good. The cortical world is a world of morality, rationality, altruism, civility and decencies. This needs inhibitory power of the cerebral cortex. Such a society is non-capitalistic and works for the common good. It tends to be non creative. The primitive collective spirituality

and oneness is lost. It is replaced by goodness based on judgment, reasoning and morality. It is a moralistic world where taboos are banned. This requires synaptic plasticity and is modulated by HERV mediated jumping genes. This needs a dynamic brain and the human cerebral cortex evolved due to the jumping genes generated from human endogenous retroviral sequences. The cerebellar world comparatively is impulsive, criminal, violent, terroristic with love of war, selfish, acquisitive, spiritual, autistic, obsessive, schizophrenic, obscene, evil, ritualized, artistic, illogical and cruel. It is mediated by the archaeal colony network. The stem cell transformation of somatic cells results in HERV resistance and retroviral resistance. Archaeal digoxin inhibits reverse transcriptase by producing magnesium deficiency as well as modulates RNA viral editing inhibiting retroviral replication. This produces lack of HERV jumping genes in this stem cell brain and lack of synaptic plasticity and dynamicity. The stem cell syndrome is characterized by retroviral resistance. Archaeal symbiosis inhibits retroviral infection. The homo sapiens with less of archaeal symbiosis becomes susceptible to retroviral and other RNA viral infection and gets wiped out. The homo neoneanderthalis are resistance to retroviral and other RNA viral infection and persists. The homo neoneanderthalis dominates all over the world. But the homo neoneanderthalis are prone to civilisational disease like malignancy, autoimmune disease, neurodegeneration, metabolic syndrome and neuropsychiatric disorders. The homo neoneanderthalis becomes extinct after a period of time.[1-17]

The archaeal induced stem cell syndrome or neanderthalisation is due to global warming and acid rains resulting in increased extremophilic archaeal symbiosis. The archaea catabolizes cholesterol and generates digoxin, bile acids and short chain fatty acids which produce induction of uncoupling proteins. This produces mitochondrial dysfunction and the cell obtains its energetics from glycolysis. Archeal digoxin produces membrane sodium potassium ATPase

inhibition which also contributes to stem cell conversion. The whole body somatic and brain undergoes stem cell conversion and becomes a stem cell phenotype with Warburg metabolic phenotype. The generalized acidity due to global warming and increased atmospheric carbon dioxide also facilitates archaeal growth and stem cell transformation. The acidic pH due to the Warburg phenotype and increased atmospheric carbon dioxide also results in stem cell conversion. The somatic differentiated cell getting converted to stem cells lose their function and become dysfunctional metabolically, neurologically, immunologically and endocrine-wise. This produces the epidemic Benjamin button syndrome and the human species becomes neanderthalic and a collection of immature stem cells. This results in epidemic metabolic syndrome x, degenerations, cancer, autoimmune disease, autism and schizophrenia. The brain becomes converted to a collection of stem cells which are dedifferentiated with loss of function and is like an archaeal colony network. The perception becomes extrasensory and quantal depending on archaeal magnetite. The increased amount of low level EMF perception results in prefrontal cortical atrophy. It also produces cerebellar hypertrophy and the cerebellar cognitive function takes over. This also results in societal changes where evil and spirituality dominates. The world of the logical civil society of the Christian world comes to end and paganistic behaviour takes over. The society becomes selfish and dominated by impulsive consumerism and acquisitive capitalism. The world becomes cruel, violent, aggressive and terroristic. Art becomes chaotic and abstract in line with the senses and unconscious. There is a predominance of obsessive and alternate sexuality. Criminal behaviour and cruelty dominates. The world is impulsive psychopathic, creative autistic with features of idiotic savants, ritualistic, chaotic, sexual, ugly, anarchic, violent, evil, paganistic, obscene, atheistically spiritual as well as selfish. It mimics the Niezteschean world, the deconstructed world of Derrida, the surrealistic world

of Bataille and the nihilistic, anarchic world. There is the death of the individual and life becomes a social value. It is an acephalistic world of Freud and Jung. The art is abstract, the literature is magically real, the music is rock and the dance chaotic. All these results from the extinction of rationality and the dominance of primitive impulsive behaviour. A civilization of the senses dominated by the unconscious takes over. The will to goodness given by the cerebral cortex is lost. This results in development of a new homo neoneanderthal human species with its dominant evilly spiritual cerebellar brain. It produces a surrealistic evil brain with realm of the senses, archetypes, evil spirituality and impulsiveness taking over. It is a kingdom of the collective unconscious and selfish capitalism with the will to power and the realm of the senses.[1-17]

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Chapter 6

The Ardhanareswara - Neanderthal Metabolonomics and Androgynous Behavioural Patterns

Introduction

Neanderthal genes have been described in the homo sapien population. The Neanderthal brain has a prominent cerebellar cortex and small prefrontal cortex. This results in defective vocalization, symbolic speech, impulsive behaviour, obsessive traits, intuition and extrasensory perception. The Neanderthal brain structure results in female dominance and matriarchal social patterns. It was considered plausible that Neanderthal genomics and metabolonomics could also contribute to androgynous behaviour. Autistic patients tend to have Neanderthal metabolonomics and phenotype. It has been demonstrated that Neanderthal phenotype is due to symbiosis by actinidic archaea using cholesterol as an energy substrate. The actinidic archaea catabolises cholesterol with ring A being oxidized to pyruvate which gets channelled to the GABA shunt pathway resulting in the formation of glycine and succinyl CoA. This results in porphyrin synthesis. The side chain oxidation results in generation of short chain fatty acids. Cholesterol is also converted to steroidogenic estrogens and testosterone. The increasing growth of actinidic archaea converts the body metabolites the cholesterol which is subsequently oxidized and depleted. Cholesterol is also converted by actinidic archaea to endogenous digoxin which helps to integrate the neuro-immuno-endocrine system. Digoxin produces sodium potassium ATPase inhibition and increased in intracellular calcium inducing nitric oxide synthase and heme oxygenase generating gasotransmitters nitric oxide and carbon monoxide important in smooth muscle contraction and autonomic function. The study deals with assessment of Neanderthal metabolonomics in androgynous individuals.[1-16]

Materials and Methods

Fifty healthy individuals with androgynous behaviour and free of any disease were chosen for the study. Each individual had a normal age and sex matched control. The estimations done in the blood samples collected include cytochrome F420 activity, cholesterol oxidase activity - cholesterol ring oxidase activity, cholesterol side chain oxidase activity, digoxin, lactate, pyruvate, ALA levels and hexokinase activity. Neanderthal anthropometry was studied in the androgynous population. The statistical analysis was done by ANOVA. Informed consent and permission of the Ethics Committee was obtained.

Results

The results of the study were as follows. The androgynous individuals had increased cytochrome F420 activity, cholesterol oxidase activity, ring oxidase activity and digoxin synthesis. The androgynous had decreased PDH activity as indicated by increased pyruvate and lactate levels. The androgynous group had increased GABA shunt pathway as indicated by increased pyruvate. The androgynous group had increased porphyrin synthesis as indicated by increased ALA levels. They had increased hexokinase activity indicating a Warburg phenotype in this group. The androgynous group had features of Neanderthal metabolism as indicated by pyruvate dehydrogenase suppression. The androgynous group has the Neanderthal anthropometric phenotype with slanting forehead, large face, stubby nose, prominent mandibles, low 2D:4D ratio, large coarse trunk, macrocephaly and longer second toe as compared to big toe.

Table 1. *Anthropometric features in androgynous population.*

Groups	Neanderthal anthropometric	Total	Percentage
Normal	0 cases	50	0
Androgyny	40 cases	50	40

Table 2. *Effect of cerium and antibiotics on cytochrome F420.*

Group	CYT F420 % (Increase with Cerium)		CYT F420 % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Normal	4.48	0.15	18.24	0.66
Androgyny	22.79	2.13	55.90	7.29
F value	306.749		130.054	
P value	< 0.001		< 0.001	

Table 3. *Effect of cerium and antibiotics on digoxin.*

Group	Digoxin (ng/ml) (Increase with Cerium)		Digoxin (ng/ml) (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Normal	0.11	0.00	0.054	0.003
Androgyny	0.55	0.06	0.219	0.043
F value	135.116		71.706	
P value	< 0.001		< 0.001	

Table 4. *Effect of cerium and antibiotics on pyruvate.*

Group	Pyruvate % change (Increase with Cerium)		Pyruvate % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Normal	4.34	0.21	18.43	0.82
Androgyny	20.99	1.46	61.23	9.73
F value	321.255		115.242	
P value	< 0.001		< 0.001	

Table 5. *Effect of cerium and antibiotics on delta amino levulinic acid.*

Group	ALA % (Increase with Cerium)		ALA % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Normal	4.40	0.10	18.48	0.39
Androgyny	23.20	1.57	66.65	4.26
F value	372.716		556.411	
P value	< 0.001		< 0.001	

Table 6

Group	RBC digoxin (ng/ml RBC Susp)		Cytochrome F420		ALA (umol24)		Pyruvate (umol/l)		RBC hexokinase (ug glu phos / hr/mgpro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	0.18	0.05	0.00	0.00	3.86	0.26	23.79	2.51	0.68	0.23
Androgyny	1.38	0.26	4.00	0.00	68.16	4.92	102.48	13.20	8.46	3.63
F value	60.288		0.001		295.467		154.701		18.187	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Discussion

The study indicates that androgynous individuals tend to have the Neanderthal phenotype with skeletal characteristics. The androgynous individuals may have more of Neanderthal genotype. The metabolonomics in androgyny is suggestive of Neanderthal phenotype. There is increased actinidic archaeal symbiosis as indicated by increase in cytochrome F420 activity. The actinidic archaea uses cholesterol as a metabolic substrate. There is ring oxidation of cholesterol generating pyruvate. The pyruvate enters the GABA shunt pathway producing glycine and succinyl CoA. This results in porphyrin synthesis. The cholesterol is also converted to steroidal glycoside digoxin. Digoxin and porphyrin intercalation in the cell membrane produces sodium potassium ATPase inhibition and accumulation of intracellular calcium. The increase in intracellular calcium induces nitric oxide synthase, heme oxygenase and cystathione synthase generating nitric oxide, carbon monoxide and

hydrogen sulphide. This results in vasodilation of the blood spaces in the corpora cavernosa and increasing autonomic function of the genitourinary system resulting in obsessive traits. The increasing cholesterol catabolism by actinidic archaea results in depletion of cholesterol from the body. This produces inhibition of estrogen and testosterone synthesis. This results in an asexual state and androgynous behaviour. The brain function depends on testosterone and estrogens. The sex hormones modulate hemispheric dominance. The estrogens produce left hemispheric dominance and testosterones produce right hemispheric dominance. The lack of estrogens and testosterones in androgyny results in equidominance. This leads to equal function of the right hemisphere and left hemisphere and a state of creativity mixed with practicality. The right hemisphere is concerned with creative behaviour and the left hemisphere is concerned with practical behaviour. Equidominance results in the generation of a new phenotype with dominance of both creativity and practicality. Equidominance and lack of estrogens and testosterones can contribute to the social state of matriarchy. There is female dominance in society. The behavioural patterns between the male and female section of the population becomes homogenized. This results in generation of matrilineal societies and the demise of patriarchy.

Porphyrinuria and porphyria are the hallmarks of androgyny. This contributes to neuro-immuno-endocrine regulation and disease states associated with androgyny. The cholesterol is catabolized to porphyrins. Porphyrins are dipolar molecules and can contribute to quantal perception which is more in androgyny contributing to creativity, spirituality and extrasensory perceptive modes of this phenotype. Low level electromagnetic fields and its porphyrin messengers can regulate the brain mediating conscious and quantal perception. Porphyrin microarrays serve the purpose of quantal and conscious perception. The archaea and viroids via porphyrin synthesis can regulate the nervous system including

the NMDA/GABA thalamo-cortico-thalamic pathway mediating conscious perception. Porphyrin photooxidation can generate free radicals which can modulate NMDA transmission. Free radicals can increase NMDA transmission. Free radicals can induce GAD and increase GABA synthesis. ALA blocks GABA transmission and upregulates NMDA. Protoporphyrins bind to GABA receptor and promote GABA transmission. Thus porphyrins can modulate the thalamo-cortico-thalamic pathway of conscious perception. The dipolar porphyrins in the setting of digoxin induced sodium potassium ATPase inhibition can produce a pumped phonon system mediated Frohlich model superconducting state inducing quantal perception with nanoarchaeal sensed gravity producing the orchestrated reduction of the quantal possibilities to the macroscopic world. ALA can produce sodium potassium ATPase inhibition resulting in a pumped phonon system mediated quantal state involving dipolar porphyrins. Porphyrin molecules have a wave particle existence and can bridge the dividing line between quantal state and particulate state. Thus the porphyrins can mediate conscious and quantal perception. Porphyrins binding to proteins, nucleic acids and cell membranes can produce biophoton emission. Porphyrins by autooxidation can generate biophotons and are involved in quantal perception. Biophotons can mediate quantal perception. Cellular porphyrins photooxidation are involved in sensing of earth magnetic fields and low level biomagnetic fields. Thus porphyrin microarrays can function as a quantal computer mediating extrasensory perception. Porphyrin microarrays in human systems and brain owing to the wave particle nature of porphyrins can bridge the quantal world and particulate world. The porphyrins can modulate hemispheric dominance. There is increased porphyrin synthesis and RHCD and decreased porphyrin synthesis in LHCD. The increase in archaeal porphyrins can contribute to the pathogenesis of schizophrenia and autism. Porphyria can lead to psychiatric disorders and seizures. Altered porphyrin metabolism has

been described in autism. Porphyrin by modulating conscious and quantal perception is involved in the pathogenesis of schizophrenia and autism. Thus porphyrins microarrays can function as a quantal brain modulating extrasensory quantal perception. Porphyrin microarrays can function as a quantal brain in communication with digital world and geomagnetic fields. The dipolar porphyrins in the setting of digoxin induced sodium potassium ATPase inhibition can produce a pumped phonon system mediated Frohlich model superconducting state inducing quantal perception with nanoarchaeal sensed gravity producing the orchestrated reduction of the quantal possibilities to the macroscopic world. ALA can produce sodium potassium ATPase inhibition resulting in a pumped phonon system mediated quantal state involving dipolar porphyrins. Porphyrins by autooxidation can generate biophotons and are involved in quantal perception. Biophotons can mediate quantal perception. Porphyrin autooxidation is modulated by low level of electromagnetic fields and geomagnetic fields. Cellular porphyrins photooxidation are involved in sensing of earth magnetic fields and low level biomagnetic fields. Porphyrins can thus contribute to quantal perception. Low level electromagnetic fields and light can induce porphyrin synthesis. Low level EMF can produce ferrochelatase inhibition as well as heme oxygenase induction contributing to heme depletion, ALA synthase induction and increased porphyrin synthesis. Light also induces ALA synthase and porphyrin synthesis. The increased porphyrin synthesized can contribute to increased quantal perception and can modulate conscious perception. The human porphyrin microarrays induced biophotons and quantal fields can modulate the source from which low level EMF and photic fields were generated. Thus the porphyrin generated by extraneous low level EMF and photic fields can interact with the source of low level EMF and photic fields modulating it. Thus porphyrins can serve as a bridge between the human brain and the source of low level EMF and photic

fields. This serves as a mode of communication between the human brain and digital EMF storage devices like internet. The porphyrins can also serve as the source of communication with the environment. Environmental EMF and chemicals produce heme oxygenase induction and heme depletion increasing porphyrin synthesis, quantal perception and two-way communication. Thus induction of porphyrin synthesis can serve as a mechanism of communication between human brain and the environment by extrasensory perception. Porphyrin microarrays can function as quantal computers storing information and can serve the purpose of extrasensory perception. Porphyrins can serve as a two way communicating bridge between digital information storage systems generating low level electromagnetic fields and human systems. The low level of EMF produced by digital system enhances porphyrin synthesis and serves the purpose of two way extrasensory perception and communication. The human porphyrin quantal computers can in turn by biophoton emission modulate digital information storage system.

Low level of electromagnetic fields and its porphyrin messengers can induce the Warburg phenotype. An actinide dependent shadow biosphere of archaea and viroids in the above mentioned disease states is described. The archaea can synthesize porphyrins and induce porphyrin synthesis. Porphyrins have been related to schizophrenia, metabolic syndrome x, malignancy, systemic lupus erythematosis, multiple sclerosis and Alzheimer's diseases. Porphyrins can mediate the effect of low level electromagnetic fields inducing the Warburg phenotype leading to the above mentioned disease states. The Warburg phenotype results in inhibition of pyruvate dehydrogenase and the TCA cycle. The pyruvate enters the GABA shunt pathway where it is converted to succinyl CoA. The glycolytic pathway is upregulated and the glycolytic metabolite phosphoglycerate is converted to serine and glycine. Glycine and succinyl CoA are the substrates for ALA synthesis. The archaea induces the enzyme heme

oxygenase. Heme oxygenase converts heme to bilirubin and biliverdin. This depletes heme from the system and results in upregulation of ALA synthase activity resulting in porphyria. Heme inhibits HIF alpha. The heme depletion results in upregulation of HIF alpha activity and further strengthening of the Warburg phenotype. The porphyrin self oxidation results in redox stress which activates HIF alpha and generates the Warburg phenotype. The Warburg phenotype results in channelling acetyl CoA for cholesterol synthesis as the TCA cycle and mitochondrial oxidative phosphorylation are blocked. The archaea uses cholesterol as an energy substrate. Porphyrin and ALA inhibits sodium potassium ATPase. This increases cholesterol synthesis by acting upon intracellular SREBP. The cholesterol is metabolized to pyruvate and then the GABA shunt pathway for ultimate use in porphyrin synthesis. The porphyrins can self organize and self replicate into macromolecular arrays. The porphyrin arrays behave like an autonomous organism and can have intramolecular electron transport generating ATP. The porphyrin macroarrays can store information and can have quantal perception. The porphyrin macroarrays serves the purpose of archaeal energetics and sensory perception. The Warburg phenotype is associated with malignancy, autoimmune disease and metabolic syndrome x. Low level electromagnetic fields can induce the Warburg phenotype contributing to human disease.

The role of porphyrins and low level electromagnetic fields in regulation of cell functions and neuro-immuno-endocrine integration is discussed. Low levels of EMF fields can induce digoxin synthesis. Protoporphyrin binds to the peripheral benzodiazepine receptor regulating steroid and digoxin synthesis. Increased porphyrin metabolites can contribute to hyperdigoxinemia. Digoxin can modulate the neuro-immuno-endocrine system. Low level of EMF fields can modulate membrane, nucleic acid and protein structure and function via induction of porphyrin synthesis. Porphyrins can combine with membranes

modulating membrane function. Porphyrins can combine with proteins oxidizing their tyrosine, tryptophan, cysteine and histidine residues producing crosslinking and altering protein conformation and function. Porphyrins can complex with DNA and RNA modulating their function. Porphyrin interpolating with DNA can alter transcription and generate HERV expression. Low level of EMF fields through modulation of porphyrin metabolism can produce heme deficiency by inhibiting heme oxygenase and ferrochelatase. Heme deficiency can also result in disease states. Heme deficiency results in deficiency of heme enzymes. There is deficiency of cytochrome C oxidase and mitochondrial dysfunction. The glutathione peroxidase is dysfunctional and the glutathione system of free radical scavenging does not function. The cytochrome P450 enzymes involved in steroid and bile acid synthesis have reduced activity leading to steroid - cortisol and sex hormones as well as bile acid deficiency states. The heme deficiency results in dysfunction of nitric oxide synthase, heme oxygenase and cystathione beta synthase resulting in lack of gasotransmitters regulating the vascular system and NMDA receptor - NO, CO and H_2S. Heme has got cytoprotective, neuroprotective, anti-inflammatory and antiproliferative effects. Heme is also involved in the stress response. Heme deficiency leads to metabolic syndrome, immune disease, degenerations and cancer. Low level electromagnetic fields can modulate cell functions and neuro-immuno-endocrine-genetic integration via induction of porphyrin synthesis. Low level electromagnetic fields via modulating porphyrin metabolism can produce an autonomic neuropathy. Protoporphyrins block acetyl choline transmission producing a vagal neuropathy with sympathetic over activity. Vagal neuropathy results in immune activation, vasospasm and vascular disease. A vagal neuropathy underlines neoplastic and autoimmune processes as well as metabolic syndrome x. Low level electromagnetic fields by modulating porphyrin metabolism can induce cell death. Porphyrin induced

increased NMDA transmission and free radical injury can contribute to neuronal degeneration. Free radicals can produce mitochondrial PT pore dysfunction. This can lead to cyto C leak and activation of the caspase cascade leading to apoptosis and cell death. Altered porphyrin metabolism has been described in Alzheimer's disease. The increased porphyrin photooxidation generated free radicals mediated NMDA transmission can also contribute to epileptogenesis. The protoporphyrins binding to mitochondrial benzodiazepine receptors can regulate brain function and cell death. Low level electromagnetic fields by modulating porphyrin metabolism can generate redox stress to regulate cell functions. The porphyrins can undergo photooxidation and auto-oxidation generating free radicals. The archaeal porphyrins can produce free radical injury. Free radicals produce NFKB activation, open the mitochondrial PT pore resulting in cell death, produce oncogene activation, activate NMDA receptor and GAD enzyme regulating neurotransmission and generates the Warburg phenotypes activating glycolysis and inhibiting TCA cycle/oxphos. Porphyrins have been related to schizophrenia, metabolic syndrome x, malignancy, systemic lupus erythematosis, multiple sclerosis and Alzheimer's diseases. Low level electromagnetic fields by modulating porphyrin metabolism can regulate cell membrane sodium potassium ATPase. The porphyrins can complex and intercalate with the cell membrane producing sodium potassium ATPase inhibition adding on to digoxin mediated inhibition. Porphyrins can complex with proteins and nucleic acid producing biophoton emission. Low level electromagnetic fields by modulating porphyrin metabolism can regulate DNA, RNA and protein structure and function. Porphyrins complexing with proteins can modulate protein structure and function. Porphyrins complexing with DNA and RNA can modulate transcription and translation. Low level electromagnetic fields by modulating porphyrin metabolism can regulate mitochondrial function, peripheral benzodiazepine receptor and steroidogenesis. The porphyrin

especially protoporphyrins can bind to peripheral benzodiazepine receptors in the mitochondria and modulate its function, mitochondrial cholesterol transport and steroidogenesis. Peripheral benzodiazepine receptor modulation by protoporphyrins can regulate cell death, cell proliferation, immunity and neural functions. Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress can regulate enzyme systems. The porphyrin photo-oxidation generates free radicals which can modulate enzyme function. Redox stress modulated enzymes include pyruvate dehydrogenase, nitric oxide synthase, cystathione beta synthase and heme oxygenase. Free radicals can modulate mitochondrial PT pore function. Free radicals can modulate cell membrane function and inhibit sodium potassium ATPase activity. Thus the porphyrins are key regulatory molecules modulating all aspects of cell function. Low level of electromagnetic fields by modulating porphyrin metabolism can induce viroidal and HERV expression. There was an increase in free RNA indicating self replicating RNA viroids and free DNA indicating generation of viroid complementary DNA strands by archaeal reverse transcriptase activity. The actinides and porphyrins modulate RNA folding and catalyse its ribozymal action. Digoxin can cut and paste the viroidal strands by modulating RNA splicing generating RNA viroidal diversity. The viroids are evolutionarily escaped archaeal group I introns which have retrotransposition and self splicing qualities. Porphyrin photo-oxidation induced redox stress can produce HDAC inhibition. Archaeal pyruvate producing histone deacetylase inhibition and porphyrins intercalating with DNA can produce endogenous retroviral (HERV) reverse transcriptase and integrase expression. This can integrate the RNA viroidal complementary DNA into the noncoding region of eukaryotic non coding DNA using HERV integrase as has been described for borna and ebola viruses. The archaea and viroids can also induce cellular porphyrin synthesis. Bacterial and viral infections can precipitate porphyria.

Thus porphyrins can regulate genomic function. The increased expression of HERV RNA can result in acquired immunodeficiency syndrome, autoimmune disease, neuronal degenerations, schizophrenia and malignancy. Low level electromagnetic fields by modulating porphyrin metabolism and generating redox stress can produce immune activation. The porphyrin photooxidation can generate free radicals which can activate NFKB. This can produce immune activation and cytokine mediated injury. The increase in archaeal porphyrins can lead to autoimmune disease like SLE and MS. A hereditary form of MS and SLE related to altered porphyrin metabolism has been described. The protoporphyrins binding to mitochondrial benzodiazepine receptors can modulate immune function. Porphyrins can combine with proteins oxidizing their tyrosine, tryptophan, cysteine and histidine residues producing crosslinking and altering protein conformation and function. Porphyrins can complex with DNA and RNA modulating their structure. Porphyrin complexed with proteins and nucleic acids are antigenic and can lead onto autoimmune disease. Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress can produce insulin resistance. The porphyrin photooxidation mediated free radical injury can lead to insulin resistance and atherogenesis. Thus archaeal porphyrins can contribute to metabolic syndrome x. Glucose has got a negative effect upon ALA synthase activity. Therefore hyperglycemia may be reactive protective mechanism to increased archaeal porphyrin synthesis. The protoporphyrins binding to mitochondrial benzodiazepine receptors can modulate mitochondrial steroidogenesis and metabolism. Altered porphyrin metabolism has been described in the metabolic syndrome x. Porphyrias can lead onto vascular thrombosis. Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress/heme deficiency can activate HIF alpha. The porphyrin photo-oxidation can generate free radicals inducing HIF alpha and producing oncogene

activation. Heme deficiency can lead to activation of HIF alpha and oncogenesis. This can lead to oncogenesis. Hepatic porphyrias induced hepatocellular carcinoma. The protoporphyrins binding to mitochondrial benzodiazepine receptors can regulate cell proliferation. Low level electromagnetic fields by modulating porphyrin metabolism can regulate prion protein conformation. The porphyrin can combine with prion proteins modulating their conformation. This leads to abnormal prion protein conformation and degradation. Archaeal porphyrins can contribute to prion disease. Low level electromagnetic fields by modulating porphyrin metabolism can produce redox stress and regulate HERV expression. The porphyrins can also intercalate with DNA producing HERV expression. The HERV particles generated can contribute to the retroviral state associated with androgyny. The porphyrins in the blood can combine with bacteria and viruses and the photooxidation generated free radicals can kill them. Low level electromagnetic fields by modulating porphyrin metabolism can lead to increase predilection for viral and bacterial infections. The archaeal porphyrins can modulate bacterial and viral infections. The archaeal porphyrins are regulatory molecules keeping other prokaryotes and viruses on check.

Thus the actinidic archaeal symbiosis results in neanderthalisation of the population and generation of androgyny. The actinidic archaeal overgrowth and symbiosis is a consequence of global warming. Archaea are extremophiles and increase in density during periods of climate change. The actinidic archaeal catabolism of cholesterol generates digoxin and increased intracellular calcium resulting in formation of excess of gasotransmitters important in autonomic function of structures like the corpora cavernosa. The cholesterol catabolism results in depletion of cholesterol and to a state of lack of sex hormone synthesis. This produces an asexual state resulting in a social system of matriarchy related to androgyny. The actinidic archaeal cholesterol catabolism generates porphyrins producing the extrasensory quantal perceptive state

associated with androgyny. This contributes to the creativity of the androgynous state. The porphyrin synthesis associated with androgyny also contributes to the disease states associated with it. This includes autoimmune disease, cancer, degenerations, acquired immunodeficiency syndrome, metabolic syndrome x and all civilisational disease.

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