Chapter 6

Global Warming and Brain Function - Neanderthalic Endosymbiotic Actinidic Archaea/Viroids, Quantal Perception and Biological Reincarnation

Introduction

Global warming leads to increased porphyrin synthesis leading onto porphyrinuria and porphyria. The stimulus for porphyrin synthesis comes from heme deficiency. Heme suppresses ALA synthase. Stress induces heme oxygenase which converts heme to carbon monoxide and bilirubin. Thus heme is depleted from the system. Heme oxygenase is induced by environmental stress. Climatic changes of global warming and ice age can induce heme oxygenase. Heme oxygenase is also induced by EMF pollution of the environment. Thus there is increased porphyrin synthesis from succinyl CoA and glycine. The porphyrins can self organize to form macromolecular structures which can self replicate to form a porphyrin organism. The photon induced transfer of electrons along the macromolecule can lead to light induced ATP synthesis. The porphyrins can form a template on which RNA and DNA can form generating viroids. The porphyrins can also form a template on which prions can form. They all can join together - RNA viroids, DNA viroids, prions - to form primitive archaea. Thus the archaea are capable of self replication on porphyrin templates. The self replicating archaea can sense gravity which gives rise to consciousness. They can also sense the anti-gravity fields which gives rise to the unconscious brain. Thus there can be both self replicating archaea and anti-archaea regulating the conscious and unconscious brain. Thus the climate change stress mediated increased porphyrin synthesis leads to prefrontal cortex atrophy, cerebellar dominance, cerebellar cognitive affective disorder, quantal perception and Neanderthalisation of the population. The porphyrions are self replicating supramolecular organisms which forms the precursor template on which the viroids, prions and nanoarchaea originate. Stress induced template directed abiogenesis of porphyrions, prions, viroids and archaea is a

continuous process and can contribute to changes in brain structure and behavior as well as disease process.

An endosymbiotic actinidic archaea and viroid mediated model of quantal perception and biological reincarnation is presented. Actinidic archaea and viroids has been related to the pathogenesis of schizophrenia, autism and primary seizure disorder.[2] Actinidic archaea have a mevalonate pathway and cholesterol catabolism.[1-8] The endosymbiotic actinidic archaea and viroids have got axonal and transynaptic transport functioning as biological neurotransmitters. The human brain can be compared to a well organized modified archaeal biofilm with archaeal derived viroids serving as messengers. The actinidic archaea with its magnetite can mediate quantal perception and store biological information. The actinidic archaea are eternal and the biological information stored in archaeal magnetite quantal computers may serve as a store of biological information in nature. The actinidic archaeal magnetite mediated quantal perception also forms the basis of the collective unconscious. This can mediate the mechanism of reincarnative memories.

Materials and Methods

Informed consent of the subjects and the approval of the ethics committee were obtained for the study. The following groups were included in the study: - schizophrenia, autism and primary seizure disorder/primary generalized epilepsy. There were 10 patients in each group and each patient had an age and sex matched healthy control selected randomly from the general population. The blood samples were drawn in the fasting state before treatment was initiated. Plasma from fasting heparinised blood was used and the experimental protocol was as follows (I) Plasma+phosphate buffered saline, (II) same as I+cholesterol substrate, (III) same as II+rutile 0.1 mg/ml, (IV) same as II+ciprofloxacine and

doxycycline each in a concentration of 1 mg/ml. Cholesterol substrate was prepared as described by Richmond.[9] Aliquots were withdrawn at zero time immediately after mixing and after incubation at 37 ℃ for 1 hour. The following estimations were carried out: - Cytochrome F420, free RNA, free DNA, polycyclic aromatic hydrocarbon, hydrogen peroxide, dopamine, noradrenaline, serotonin, pyruvate, ammonia, glutamate, acetyl choline, hexokinase, HMG CoA reductase, digoxin and bile acids.[10-13] Cytochrome F420 was estimated flourimetrically (excitation wavelength 420 nm and emission wavelength 520 nm). Polycyclic aromatic hydrocarbon was estimated by measuring hydrogen peroxide liberated by using glucose reagent. The statistical analysis was done by ANOVA.

Results

The parameters checked as indicated above were: - cytochrome F420, free RNA, free DNA, muramic acid, polycyclic aromatic hydrocarbon, hydrogen peroxide, serotonin, pyruvate, ammonia, glutamate, cytochrome C, hexokinase, ATP synthase, HMG CoA reductase, digoxin and bile acids. Plasma of control subjects showed increased levels of the above mentioned parameters with after incubation for 1 hour and addition of cholesterol substrate resulted in still further significant increase in these parameters. The plasma of patients showed similar results but the extent of increase was more. The addition of antibiotics to the control plasma caused a decrease in all the parameters while addition of rutile increased their levels. The addition of antibiotics to the patient's plasma caused a decrease in all the parameters while addition of rutile increased their levels but the extent of change was more in patient's sera as compared to controls. The results are expressed in tables 1-8 as percentage change in the parameters after 1 hour incubation as compared to the values at zero time.

Table 1. *Effect of rutile and antibiotics on cytochrome F 420 and noradrenaline.*

Group	CYT F420 % (Increase with Rutile)		CYT F420 % (Decrease with Doxy)		Noradrenaline % (Increase with Rutile)		Noradrenaline % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.48	0.15	18.24	0.66	4.43	0.19	18.13	0.63
Schizo	23.24	2.01	58.72	7.08	22.50	1.66	60.21	7.42
Seizure	23.46	1.87	59.27	8.86	23.81	1.19	61.08	7.38
Autism	21.68	1.90	57.93	9.64	23.52	1.49	63.24	7.36
P value	306.749		130.054		380.721		171.228	
F value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 2. *Effect of rutile and antibiotics on dopamine and serotonin.*

Group	DOPAMINE % change (Increase with Rutile)		DOPAMINE % change (Decrease with Doxy)		Serotonin % change (Increase with Rutile)		Serotonin % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.41	0.15	18.63	0.12	4.34	0.15	18.24	0.37
Schizo	21.88	1.19	66.28	3.60	23.02	1.65	67.61	2.77
Seizure	22.29	1.33	65.38	3.62	22.13	2.14	66.26	3.93
Autism	22.76	2.20	67.63	3.52	22.79	2.20	64.26	6.02
F value	403.394		680.284		348.867		364.999	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 3. *Effect of rutile and antibiotics on free DNA and RNA.*

Group	DNA % change (Increase with Rutile)		DNA % change (Decrease with Doxy)		RNA % change (Increase with Rutile)		RNA % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.37	0.15	18.39	0.38	4.37	0.13	18.38	0.48
Schizo	23.28	1.70	61.41	3.36	23.59	1.83	65.69	3.94
Seizure	23.40	1.51	63.68	4.66	23.08	1.87	65.09	3.48
Autism	22.12	2.44	63.69	5.14	23.33	1.35	66.83	3.27
F value	337.577		356.621		427.828		654.453	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 4. *Effect of rutile and antibiotics on HMG CoA reductase and PAH.*

Group	HMG CoA R % change (Increase with Rutile)		HMG CoA R % change (Decrease with Doxy)		PAH % change (Increase with Rutile)		PAH % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.30	0.20	18.35	0.35	4.45	0.14	18.25	0.72
Schizo	22.91	1.92	61.63	6.79	23.01	1.69	59.49	4.30
Seizure	23.09	1.69	61.62	8.69	22.67	2.29	57.69	5.29
Autism	22.72	1.89	64.51	5.73	22.61	1.42	64.48	6.90
F value	319.332		199.553		391.318		257.996	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 5. *Effect of rutile and antibiotics on digoxin and bile acids.*

Group	Digoxin (ng/ml) (Increase with Rutile)		Digoxin (ng/ml) (Decrease with Doxy+Cipro)		Bile acids % change (Increase with Rutile)		Bile acids % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	0.11	0.00	0.054	0.003	4.29	0.18	18.15	0.58
Schizo	0.55	0.06	0.219	0.043	23.20	1.87	57.04	4.27
Seizure	0.51	0.05	0.199	0.027	22.61	2.22	66.62	4.99
Autism	0.53	0.08	0.205	0.041	22.21	2.04	63.84	6.16
F value	135.116		71.706		290.441		203.651	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 6. *Effect of rutile and antibiotics on pyruvate and hexokinase.*

Group	Pyruvate % change(Increase with Rutile)		Pyruvate % change (Decrease with Doxy)		Hexokinase % change (Increase with Rutile)		Hexokinase % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.34	0.21	18.43	0.82	4.21	0.16	18.56	0.76
Schizo	20.99	1.46	61.23	9.73	23.01	2.61	65.87	5.27
Seizure	20.94	1.54	62.76	8.52	23.33	1.79	62.50	5.56
Autism	21.91	1.71	58.45	6.66	22.88	1.87	65.45	5.08
F value	321.255		115.242		292.065		317.966	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 7. *Effect of rutile and antibiotics on hydrogen peroxide and acetyl choline.*

Group	H_2O_2 % (Increase with Rutile)		H_2O_2 % (Decrease with Doxy)		Acetyl Choline% (Increase with Rutile)		Acetyl Choline % (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.43	0.19	18.13	0.63	4.40	0.10	18.48	0.39
Schizo	22.50	1.66	60.21	7.42	22.52	1.90	66.39	4.20
Seizure	23.81	1.19	61.08	7.38	22.83	1.90	67.23	3.45
Autism	23.52	1.49	63.24	7.36	23.20	1.57	66.65	4.26
F value	380.721		171.228		372.716		556.411	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 8. *Effect of rutile and antibiotics on glutamate and ammonia.*

Group	Glutamate % (Increase with Rutile)		Glutamate % (Decrease with Doxy)		Ammonia % (Increase with Rutile)		Ammonia % (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.34	0.21	18.43	0.82	4.40	0.10	18.48	0.39
Schizo	20.99	1.46	61.23	9.73	22.52	1.90	66.39	4.20
Seizure	20.94	1.54	62.76	8.52	22.83	1.90	67.23	3.45
Autism	21.91	1.71	58.45	6.66	23.20	1.57	66.65	4.26
F value	321.255		115.242		372.716		556.411	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Discussion

There was increase in cytochrome F420 indicating archaeal growth. The archaea can synthesize and use cholesterol as a carbon and energy source.[14, 15] The archaeal origin of the enzyme activities was indicated by antibiotic induced suppression. The study indicates the presence of actinide based archaea with an alternate actinide based enzymes or metalloenzymes in the system as indicated by rutile induced increase in enzyme activities.[16] There was also an increase in archaeal HMG CoA reductase activity indicating increased cholesterol synthesis by the archaeal mevalonate pathway. The archaeal beta hydroxyl steroid

dehydrogenase activity indicating digoxin synthesis and archaeal cholesterol hydroxylase activity indicating bile acid synthesis were increased.[7] The archaeal cholesterol oxidase activity was increased resulting in generation of pyruvate and hydrogen peroxide.[15] The pyruvate gets converted to glutamate and ammonia by the GABA shunt pathway. The pyruvate can get converted to acetyl CoA and acetyl choline. The archaeal aromatization of cholesterol generating PAH, serotonin and dopamine was also detected.[17] The archaeal glycolytic hexokinase activity and archaeal extracellular ATP synthase activity were increased. The archaea can undergo magnetite and calcium carbonate mineralization and can exist as calcified nanoforms.[18]

The archaea and viroids can regulate the nervous system including the NMDA/GABA thalamo-cortico-thalamic pathway mediating conscious perception.[2, 19] NMDA/GABA receptors can be modulated by digoxin induced calcium oscillations resulting in NMDA/glutamic acid decarboxylase (GAD) activity induction, PAH increasing NMDA activity and inducing GAD as well as viroid induced RNA interference modulating NMDA/GABA receptors.[2] The cholesterol ring oxidase generated pyruvate can be converted by the GABA shunt pathway to glutamate and GABA. Increased NMDA transmission has been described in schizophrenia, autism and primary seizure disorder. The archaeal bile acids are chemically diverse and structurally different from human bile acids. The archaeal bile acids can bind olfactory GPCR receptors and stimulate the limbic lobe producing a sense of social identity. The dominance of archaeal bile acids over human bile acids in stimulating the olfactory GPCR - limbic lobe pathway leads to loss of social identity and schizophrenia/autism. The archaeal bile acids are important as modulators of the limbic lobe and gives social, group and racial identity to humans.

The brain functions as a quantum computer with quantum computer memory elements constituted of superconducting quantum interference devices - the SQUIDS which can exists as superpositions of macroscopic states. Bose condensation, the basis of superconductivity is achievable at room temperature in the Frohlich model in biological systems. The dielectric archaeal magnetite and PAH are excellent electric dipole oscillators which exists under a steep neuronal membrane voltage gradient. The individual oscillators are energized with constant source of pumping energy from outside by digoxin binding to membrane sodium potassium ATPase and producing a paroxysmal depolarization shift in the neuronal membrane. This prevents the dipole oscillators from ever settling into thermal equilibrium with the cytoplasm and the interstitial fluid which is always kept at constant temperature. Bose condensed states produced by digoxin mediated dielectric magnetite molecular pumped phonon system could be used to store information which might be encoded - all within the lowest collective frequency mode - by appropriately adjusting the amplitude and phase relations between the dipole oscillators. The external world sensory impression exists in the dipole oscillators as probabilistic multiple superimposed patterns - the U phase of quantum mechanics. The part of the incoming quantal data maps of the external world built by subliminal perception in logical sequence and corollary to the external cortical world map built by conscious perception is chosen. Digoxin by acting on neuronal membrane helps to magnify the chosen map to one graviton criteria and to the threshold required for the neuronal network to fire and consciousness. The nanoarchaeal magnetite sensed gravity can also produce the orchestrated reduction of the quantal possibilities to the macroscopic world. The comparison between subliminally perceived quantal maps and previous cortical maps stored in synaptic networks occurs by quantal non-local quasicrystal tiling effect which mediates the activation and deactivation of synapses through contraction and

growth of dendritic spines. Digoxin binding to sodium potassium ATPase can modulate lipid microdomains in neuronal membrane altering the conformation of dendritic spine proteins bound to neuronal membrane. This can contribute to contraction and growth of dendritic spines and the quasicrystal tilling effect. The R part of quantal subthreshold perception is not deterministic and it introduces a completely random element into the time evolution and in the operation of R, there might be a role of free will. In the quantal perception there is no past, present or future. All of them can exist together. This gives an explanation for the extrasensory perception and premonitions and visions of the past. Also in the quantal state, non-locality and action at a distance is possible. This can explain psychokinesis and mind travel. The information stored in one brain can be quantally transferred to the another brain raising the possibility of reincarnative experiences. Quantal perception model of brain function can give an explanation for hypnosis. In the quantal state, depending on the observer function of consciousness matter can be created out of void. The quantal state comes to the particulate state only when there is a quantal observer. Consciousness depends upon quantal subliminal perception by cortical dipole magnetite oscillators. The external world comes into existence depending on the observer function of consciousness. Thus consciousness and the external world are interdependent and the external world exists because of the act of observation. The world is a mirage and is a reflection of the observer function of the consciousness.[19]

The archaeal magnetite and archaeal digoxin can store all the world experiences in magnetite dipole oscillators serving as a store of biological quantal information. The archaea are external and never die. The actinidic magnetotactic archaea can carry all the biological information in the world for eternity. The actinidic archaea exists as the third element in each cell and it can carry the biological information in the quantal magnetite computers to the

embryonal cells mediating a form of biological reincarnation. The eternal actinidic archaeal third element can serve as a source of pre-existing biological information of a previous life for the purpose of building up the present biological personality of a new individual in continuation with experiences in previous life stored in archaeal magnetite quantal computers. The quantal perception mediated by actinidic archaea and viroids also gives rise to the phenomena of the collective unconscious where the biological information stored archaeal magnetite quantal computers in different brains function as one single undivided whole.[19]

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