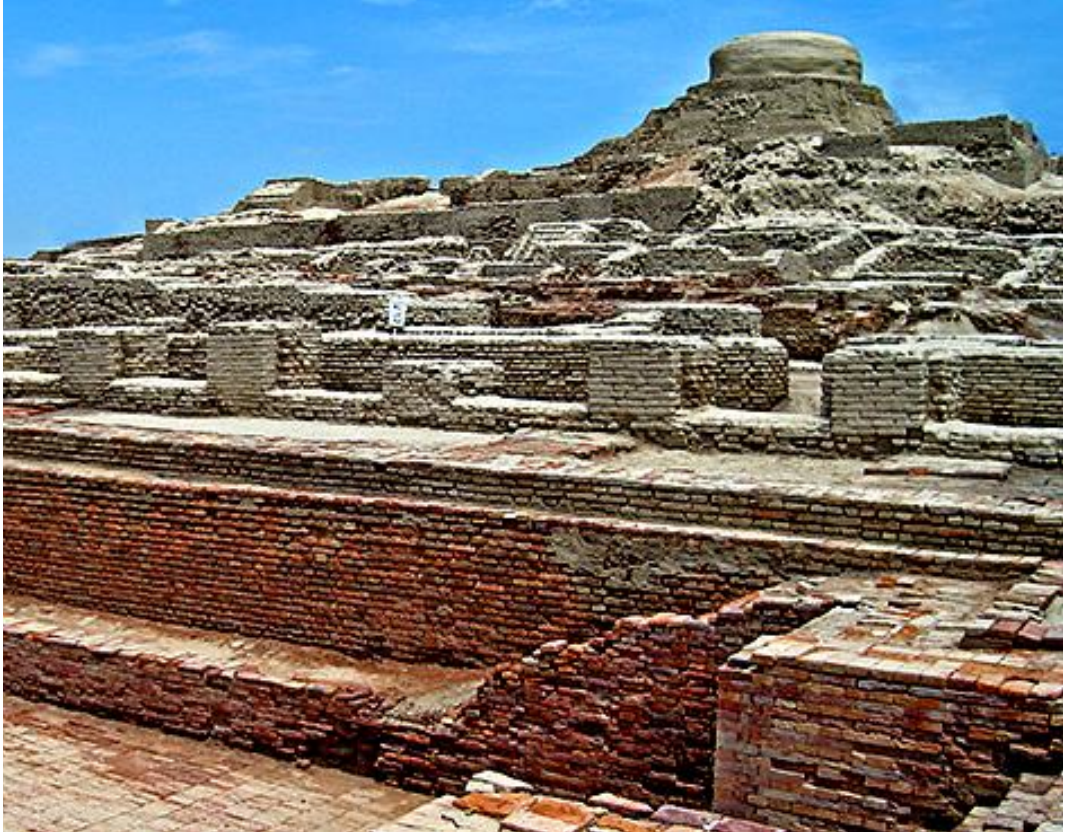

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Contents

Chapter 1

Evidence for out of Oceania Origin of Homo Neanderthalis from the Lemurian Supercontinent in the Indian Ocean

Introduction

Actinidic beach sands have been postulated to play a pivotal role in abiogenesis. Chronic calcific pancreatitis (CCP), endomyocardial fibrosis (EMF), multinodular goitre (MNG) and mucoid angiopathy along with the root wilt disease of coconut is endemic to Kerala with its radioactive actinide beach sands. The Actinides like rutile producing intracellular magnesium deficiency due to actinide-magnesium exchange sites in the cell membrane has been implicated in the etiology of EMF.[1-3] Endogenous digoxin, a steroidal glycoside which functions as a membrane sodium potassium ATPase inhibitor has also been related to its etiology of EMF, CCP, MNG and mucoid angiopathy.[4] Digoxin produces intracellular magnesium deficiency which results in acidic mucopolysaccharide accumulation of the vascular, cardiac and endocrine tissues contributing to the pathogenesis. Organisms like phytoplasmas and viroids have also been demonstrated to play a role in the etiology of root wilt disease of coconut which is co-endemic in Kerala.[5, 6] The possibility of endogenous digoxin synthesis by actinide based primitive organism like archaea with a mevalonate pathway and cholesterol catabolism was considered.[7-9] The role of RNA viroids in the etiopathogenesis of EMF, CCP, MNG and mucoid angiopathy was also explored. Davies has put forward the concept of a shadow biosphere of organisms with alternate biochemistry present in earth itself.[10] An actinide dependent shadow biosphere of archaea and viroids in the above mentioned disease states is described.[7]

The group of diseases are seen in particular geographic areas of the world near the equator - South India, South America, South Africa and Australia.[1, 2, 3] These geographic areas are rich in placer deposits containing monazite, illmenite, rutile and thorium. These areas peninsular India, Africa, Australia, South America and

Antarctica formed part of one single pre-historic continent in Southern ocean and Indian ocean called Lemuria by geologists. The evolution of primates and homo sapiens occurred in the rift valley of Africa part of this pre-historic continent. Metal actinides in beach sands have been postulated to play a role in abiogenesis. Actinide mineral like rutile, monazite and illmenite by surface metabolism would have contributed to abiogenesis. A hypothesis of cholesterol as the primal prebiotic molecule synthesized on actinide surfaces with all other biomolecules arising from it and a self replicating cholesterol lipid organism as the initial life form is presented. Actinide dependent organism would have contributed to primate and human evolution. It is also possible that actinidic organisms would also have contributed to the destruction of the Lemurian supercontinent. This paper postulates that the co-existence of EMF, CCP and MNG in the above mentioned geographic areas points to the possibility of these land masses being joined together has one single land mass - Lemuria.

The postulated Lemurian part of the Indian sub-continent in South India is inhabited by the dominant Nair community which has a high incidence of EMF, CCP and MNG. The dominant Nair community also has a high incidence of autism. Neanderthal anthropometric features have been described in autism. Neanderthal metabolonomics have also been described in autism. The same anthropometric features are seen in EMF, CCP and MNG. It is possible that homo neanderthalis would have originated in the super continent which occupied the southern ocean. The island of Sumatra is home to another human species homo floresiensis which lived along with homo neanderthalis. This suggests an oceanic origin of homo neanderthalis in the supercontinent in the southern ocean. Recurrent Tsunamis would have forced the migration of homo neanderthalis to the Eurasian land mass especially to Harappa, Sumeria, Etruscia, Egypt and Basque country. There is a high incidence of Neanderthal genes in the Basque population. The language spoken in Harappa, Sumeria, Etruscia, Egypt and

Basque country had a Dravidian sub-stratum. The population in these areas are matrilineal and female dominant. This suggests an out of oceania hypothesis for the origin of homo neanderthalis.

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: - endomyocardial fibrosis, chronic calcific pancreatitis, multinodular goitre and mucoid angiopathy. 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.[11] 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, muramic acid, polycyclic aromatic hydrocarbon, hydrogen peroxide, serotonin, pyruvate, ammonia, glutamate, cytochrome C, hexokinase, ATP synthase, HMG CoA redutase, digoxin and urease.[12-15] 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.

Neanderthal anthropometric features were evaluated in the Nair community and in EMF, CCP, MNG and autism.

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 urease. 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 1-7 as percentage change in the parameters after 1 hour incubation as compared to the values at zero time.

The Nair community had a high prevalence of Neanderthal anthropometric features. Neanderthal anthropometric features were also dominant in autism, EMF, CCP and MNG.

Table 1. *Effect of rutile and antibiotics on muramic acid and serotonin.*

Group	Muramic acid % (Increase without Doxy)		Muramic acid % (Decrease with Doxy)		5 HT % (Increase without Doxy)		5 HT % (Decrease with Doxy)	
	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
Muc Angio	24.43	0.81	68.72	2.77	24.32	1.09	65.80	5.14
EMF	22.28	1.52	64.05	2.79	22.82	1.56	64.61	4.95
CCP	23.07	1.46	64.68	3.86	22.89	1.50	64.19	6.51
MNG	23.85	1.69	66.43	3.17	22.72	1.64	63.91	4.93
F value	403.394		680.284		348.867		364.999	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 2. *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
Muc Angio	22.27	1.49	63.99	4.03	22.27	1.49	69.25	2.33
EMF	22.29	2.05	58.70	7.34	22.29	2.05	67.03	5.97
CCP	21.19	2.18	61.63	7.68	21.19	2.18	62.99	5.47
MNG	22.93	2.08	63.49	5.01	23.19	1.74	65.68	4.06
F value	337.577		356.621		427.828		654.453	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 3. *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
Muc Angio	24.44	0.90	59.90	4.74	23.90	1.36	63.29	6.86
EMF	22.92	1.48	61.91	7.56	23.73	1.38	65.20	6.20
CCP	23.27	1.96	63.09	9.21	22.85	1.71	66.14	3.58
MNG	23.65	1.88	64.78	6.62	23.79	1.19	64.24	3.96
F value	319.332		199.553		391.318		257.996	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 4. *Effect of rutile and antibiotics on digoxin and urease.*

Group	Digoxin (ng/ml) (Increase with Rutile)		Digoxin (ng/ml) (Decrease with Doxy+Cipro)		Urease % change (Increase with Rutile)		Urease % 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
Muc Angio	0.53	0.03	0.224	0.041	23.37	1.55	63.99	4.03
EMF	0.51	0.05	0.213	0.033	23.41	1.41	58.70	7.34
CCP	0.47	0.05	0.212	0.028	22.44	2.00	61.63	7.68
MNG	0.51	0.06	0.227	0.040	22.15	1.79	65.49	7.28
F value	135.116		71.706		290.441		203.651	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 5. *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
Muc Angio	22.27	1.49	61.94	5.49	23.67	1.65	69.25	2.33
EMF	22.29	2.05	62.37	5.05	21.66	1.94	67.03	5.97
CCP	21.19	2.18	54.82	8.70	22.27	2.18	62.99	5.47
MNG	19.73	2.27	59.36	7.53	22.51	2.32	62.70	3.24
F value	321.255		115.242		292.065		317.966	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 6. *Effect of rutile and antibiotics on hydrogen peroxide and delta amino levulinic acid.*

Group	H_2O_2 % (Increase with Rutile)		H_2O_2 % (Decrease with Doxy)		ALA % (Increase with Rutile)		ALA % (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
Muc Angio	23.64	1.50	60.44	6.83	22.27	1.49	59.90	4.74
EMF	23.29	1.67	60.52	5.38	22.29	2.05	61.91	7.56
CCP	23.38	1.79	57.37	7.45	21.19	2.18	63.09	9.21
MNG	22.00	1.77	61.39	7.47	22.71	1.82	66.13	3.83
F value	380.721		171.228		372.716		556.411	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 7. *Effect of rutile and antibiotics on ATP synthase and cytochrome F 420.*

Group	ATP synthase % (Increase with Rutile)		ATP synthase % (Decrease with Doxy)		CYT F420 % (Increase with Rutile)		CYT F420 % (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.40	0.11	18.78	0.11	4.48	0.15	18.24	0.66
Muc Angio	23.45	1.52	67.05	4.84	23.72	1.76	58.92	5.46
EMF	23.37	1.31	63.97	3.62	22.70	1.87	60.46	8.06
CCP	22.53	1.92	66.31	3.10	21.31	1.37	57.32	8.41
MNG	23.39	1.14	68.11	3.02	22.17	2.01	65.15	6.46
F value	449.503		673.081		306.749		130.054	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Abbreviations

Muc Angio: Mucoid angiopathy

EMF: Endomyocardial fibrosis

CCP: Chronic calcific pancreatitis

MNG: Multinodular goiter

Table 8. *Incidence of autism in Nair, autistic and non-Nair population.*

Groups	Autism	Percentage
Nair	68 cases	68
Non-Nair	32 cases	32
Total	100	

Table 9. *Anthropometric features in Nair, autistic and non-Nair population.*

Groups	Neanderthal Anthropometric	Total cases	Percentage
Nair	72 cases	100	72
Non-Nair	21 cases	100	21
Autism	81 cases	100	81

Table 10. *Anthropometric features in EMF, CCP and MNG.*

Groups	Neanderthal Anthropometric	Total cases	Percentage
EMF	8 cases	10	80
CCP	6 cases	10	60
MNG	7 cases	10	70

Table 11. *Incidence of EMF, CCP and MNG community-wise.*

Groups	Cases	Percentage
EMF	8/10 cases	80
CCP	7/10 cases	70
MNG	9/10 cases	90

(Nair population is 7% of Kerala population)

Discussion

Neanderthal anthropometric features were seen in autism, EMF, CCP and MNG which were more common in Nair community dominating the part of the Indian subcontinent derived from Lemuria. This suggests a Lemurian supercontinent origin of the homo neanderthalis. The homo neanderthalis shared the Lemurian supercontinent with another human species called homo floresiensis. Homo floresiensis has been detected in the island of Sumatra in Indonesia. The Nair community dominates the Kerala coast of South India. The Nair community is matrilineal and Dravidian. There are other civilisations speaking the Dravidian language important in human evolution like Harappa, Sumeria, Etruscia, Egypt and Basque country. These civilisations may have a Neanderthal substratum. They would have migrated to the Eurasian land mass from the Lemurian supercontinent when it was destroyed by tsunamis in the Indian ocean. The Tsunamis would have evolved due to archaeal overgrowth in the southern ocean during the ice age. The archaea are extremophiles. The archaeal overgrowth in the Indian ocean bed in the ice age would have released

methane. This would have triggered movement of the earth crust, earthquakes and Tsunamis. The same endosymbiotic archaeal growth would have led to evolution of homo neanderthalis. The endosymbiotic archaeal metabolism in primates would have generated the species homo neanderthalis. The homo neanderthalis contributed to the civilisations of Harappa, Sumeria, Etruscia, Egypt, Basque and Celts. They were all matrilineal with gender equality. They had a symbolic language predominantly non-vocal. Music, dance and painting as a form of communication was prevalent in these societies. This is exemplified by the Harappan language dominated by Harappan seals and the Egyptian hieroglyphics. The concept of spirituality evolved in these societies including the worship of the mother Goddess.

There was increase in cytochrome F420 indicating archaeal growth in endomyocardial fibrosis, chronic calcific pancreatitis, multinodular goitre and mucoid angiopathy. The archaea can synthesize and use cholesterol as a carbon and energy source.[16, 17] 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.[18] 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.[8] The archaeal cholesterol oxidase activity was increased resulting in generation of pyruvate and hydrogen peroxide.[17] The pyruvate gets converted to glutamate and ammonia by the GABA shunt pathway. The archaeal aromatization of cholesterol generating PAH, serotonin and dopamine was also detected.[19] The archaeal glycolytic hexokinase activity and archaeal extracellular ATP synthase activity were increased. 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 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.[20] Archaeal pyruvate can produce histone deacetylase inhibition resulting in 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.[21] The noncoding DNA is lengthened by integrating RNA viroidal complementary DNA with the integration going on as a continuing event. The archaea genome can also get integrated into human genome using integrase as has been described for trypanosomes.[22] The integrated viroids and archaea can undergo vertical transmission and can exist as genomic parasites.[21, 22] This increases the length and alters the grammar of the noncoding region producing memes or memory of acquired characters.[23] The viroidal complementary DNA can function as jumping genes producing a dynamic genome and changing DNA sequences. The RNA viroids can regulate mRNA function by RNA interference.[20] The phenomena of RNA interference can modulate euchromatin/heterochromatin expression. RNA viroidal mRNA interference plays a role in the pathogenesis of endomyocardial fibrosis, chronic calcific pancreatitis, multinodular goitre and mucoid angiopathy. The viroidal RNA modulation of T cell and B cell function by mRNA interference can lead to immune activation. Monocytic infiltration of the vascular wall, cardiac and endocrine tissue can produce reactive connective tissue macromolecular deposition contributing to EMF, CCP, MNG and mucoid angiopathy. The viroidal RNA mediated mRNA interference can also inhibit insulin signalling

and secretion leading onto CCP. The viroid RNA can inhibit thyroid hormone secretion and action by mRNA interference leading to increased TSH secretion and multinodular goitre.

The presence of muramic acid, HMG CoA reductase and cholesterol oxidase activity inhibited by antibiotics indicates the presence of bacteria with mevalonate pathway. The bacterial with mevalonate pathway include streptococcus, staphylococcus, actinomycetes, listeria, coxiella and borrelia.[24] The bacteria and archaea with mevalonate pathway and cholesterol catabolism had a evolutionarily advantage and constitutes the isoprenoidal clade organism with the archaea evolving into mevalonate pathway gram positive and gram negative organism through horizontal gene transfer of viroidal and virus genes.[25] The isoprenoidal clade prokaryotes develop into other groups of prokaryotes via viroidal/virus as well as eukaryotic horizontal gene transfer producing bacterial speciation.[26] The RNA viroids and its complementary DNA developed into cholesterol enveloped RNA and DNA viruses like herpes, retrovirus, influenza virus, borna virus, cytomegalo virus and ebstein barr virus by recombining with eukaryotic and human genes resulting in viral speciation. Bacterial and viral species are ill defined and fuzzy with all of them forming one common genetic pool with frequent horizontal gene transfer and recombination. Thus the multi and unicellular eukaryote with its genes serves the purpose of prokaryotic and viral speciation. The multicellular eukaryote developed so that their endosymbiotic archaeal colonies could survive and forage better. The multicellular eukaryotes are like bacterial biofilms. The archaea and bacteria with a mevalonate pathway uses the extracellular RNA viroids and DNA viroids for quorum sensing and in the generation of symbiotic biofilm like structures which develop into multicellular eukaryotes.[27, 28] The endosymbiotic archaea and bacteria with mevalonate pathway still uses the RNA viroids and DNA viroids for the regulation of multicellular eukaryote. Pollution is induced by the

primitive nanoarchaea and mevalonate pathway bacteria synthesized PAH and methane leading on to redox stress. Redox stress leads to sodium potassium ATPase inhibition, inward movement of plasma membrane cholesterol, defective SREBP sensing, increased cholesterol synthesis and nanoarchaeal/mevalonate pathway bacterial growth.[29] Redox stress leads on to viroidal and archaeal multiplication. Redox stress can also lead to HERV reverse transcriptase and integrase expression. The noncoding DNA is formed of integrating RNA viroidal complementary DNA and archaea with the integration going on as a continuing event. The change in the length and grammar of the noncoding region produces eukaryotic speciation and individuality.[30] Thus actinidic nanoarchaea would have contributed to the evolution of the multicellular eukaryote, primates and humans. Changes in the length of noncoding region especially due to integration of viroid complementary DNA and archaea and the resulting jumping genes leads to new DNA sequences possibly contributing to EMF, CCP, MNG and mucoid angiopathy.[31] The integrated viroidal, archaeal and mevalonate pathway bacterial sequences can undergo vertical transmission and can exist as genomic parasites. The genomic integrated archaea, mevalonate pathway bacteria and viroids form a genomic reserve of bacteria and viruses which can recombine with human and eukaryotic genes producing bacterial and viral speciation. Archaea and mevalonate pathway bacteria can lead onto EMF, CCP, MNG and mucoid angiopathy. The persistent symbiosis leads to reparative connective tissue macromolecular deposition of acidic mucopolysaccharides, glycoproteins, collagen and elastin leading to fibrotic changes in the heart, vessel wall, thyroid and pancreas contributing to EMF, CCP, MNG and mucoid angiopathy.[4, 32] The integration of nanoarchaea, mevalonate pathway prokaryotes and viroids in to the eukaryotic and human genome produces a chimera which can multiply producing biofilm like multicellular structures having a mixed archaeal, viroidal, prokaryotic and eukaryotic characters which is a regression from the

multicellular eukaryotic tissue. This results in a new metabolic and immune phenotype or microchimeras leading on to human diseases like EMF, CCP, MNG and mucoid angiopathy with a predilection to develop malignancy. Microchimeras can lead to cellular polyploidy important in malignant transformation and induction of carcinoma of thyroid and pancreas. The growth of archaea in the vascular, cardiac and endocrine tissues can result in calcification. The archaea can form calcified nanoarchaeal structures which can exist as colonies in slime. The archaea can undergo magnetite and calcium carbonate mineralization and can exist as calcified nanoforms.[33] The calcified nanoarchaea can contribute to the tissue calcification noted in CCP, MNG and mucoid angiopathy.

Archaea and RNA viroid can bind the TLR receptor induce NFKB producing immune activation and cytokine TNF alpha secretion. The archaeal DXP and mevalonate pathway metabolites can bind γδ TCR and digoxin induced calcium signaling can activate NFKB producing chronic immune activation.[4, 34] The archaea and viroid can induce chronic immune activation and generation of superantigens. The archaea and viroid induced chronic immune activation can lead to monocyte infiltration of the vessel wall, cardiac and endocrine tissues leading on to reparative connective tissue macromolecular deposition. Immune activation results in induction of NADPH oxidase which generates hydrogen peroxide. Cholesterol oxidase activity also generates hydrogen peroxide. Hydrogen peroxide can produce tissue injury in MNG, CCP, EMF and mucoid angiopathy contributing to reparative connective tissue macromolecular deposition. Immune activation can also produce insulin resistance. TNF alpha produced by chronic immune activation can modulate the insulin receptor producing insulin resistance.[35] Chronic immune activation and cholesterol oxidase generated hydrogen peroxide can induce neutral sphingomyelinase generating ceramide producing insulin resistance.[36] This can contribute to

chronic calcific pancreatitis. Immune activation and NFKB induction can suppress the thyroid hormone receptor resulting in hypothyroidism and increased TSH levels contributing to thyroid gland enlargement and multinodular goitre. Immune activation and NFKB induction can suppress the nuclear receptors LXR, PXR and FXR. FXR suppression can also lead to insulin resistance as well as increased connective tissue MPS deposition in vessel wall, cardiac tissue and endocrine tissue. LXR suppression by NFKB stimulates HMG CoA reductase activity and suppresses cholesterol 7 alpha hydroxylase activity.[37] This stimulates cholesterol synthesis and inhibits its degradation via the bile acid pathway. PXR suppression by NFKB prevents cholesterol detoxification via the bile acid shunt pathway.[38] Thus LXR and PXR suppression by NFKB produces acute cholesterol toxicity. The increased cholesterol in the system leads to still further archaeal multiplication and growth as they depend on cholesterol as a carbon and energy source.

Archaea, viroids and digoxin can induce the host AKT PI3K, AMPK, HIF alpha and NFKB producing the Warburg metabolic phenotype.[39] The increased glycolytic hexokinase activity, decrease in blood ATP, leakage of cytochrome C, increase in serum pyruvate and decrease in acetyl CoA indicates the generation of the Warburg phenotype. There is induction of glycolysis, inhibition of PDH activity and mitochondrial dysfunction resulting in inefficient energetics. Mitochondrial dysfunction owing to the Warburg's phenotype can contribute to ineffective glucose utilisation and CCP. The accumulated pyruvate enters the GABA shunt pathway and is converted to citrate which is acted upon by citrate lyase and converted to acetyl CoA, used for cholesterol synthesis.[39] The increased cholesterol substrate also leads to increased archaeal growth and digoxin synthesis due to metabolic channeling to the mevalonate pathway. The Warburg phenotype leads to increased lipid synthesis and defective beta oxidation of fatty acids. The myocardium depends on fatty acids beta oxidation

for energetics. The defective beta oxidation of fatty acids leads to myocardial dysfunction and EMF. The Warburg phenotype leads to upregulated glycolysis and increase in the metabolite fructose 1,6 diphosphate which is channelled to the pentose phosphate pathway. This can generate UDP sugars used for mucopolysaccharide synthesis. This results in acidic MPS deposition in the tissues leading onto EMF, CCP, MNG and mucoid angiopathy. The pyruvate can be converted to glutamate and ammonia which is oxidised by archaea for energy needs. Ammonia can stimulate membrane sodium potassium ATPase, increase ATP utilisation and produce mitochondrial transmembrane potential changes leading to mitochondrial dysfunction. This causes defective glucose utilisation contributing to CCP. Archaeal urease can convert urea to ammonia and thiocyanate. Increase cyanide load in the system can lead to mitochondrial dysfunction.[3] Cyanide related mitochondrial dysfunction can produce EMF, CCP and MNG. It produces defective cardiac function, decreased glucose utilisation and impaired iodide transport into the thyroid follicular cells. The Warburg phenotype can also lead onto malignant transformation. The upregulated glycolysis results in increased mitochondrial PT pore hexokinase and cell proliferation producing carcinoma of thyroid and pancreas.

Digoxin can produce sodium potassium ATPase inhibition and inward movement of plasma membrane cholesterol. This produces defective SREBP sensing, increased HMG CoA reductase activity and cholesterol synthesis.[29] The digoxin induced inward movement of plasma membrane cholesterol can alter membrane cholesterol/sphingomyelin ratio producing modified lipid microdomains.[40] The digoxin induced lipid microdomain modulation can regulate the GPCR couple adrenaline, noradrenaline, glucagon and neuropeptide receptors as well as protein tyrosine kinase linked insulin receptor. This can lead onto CCP. The digoxin mediated inhibition of nuclear membrane sodium potassium ATPase can modulate nuclear membrane lipid microdomains and

thyroxine DNA receptor function. This can lead onto hypothyroidism, increased TSH levels and thyroid gland enlargement contributing to MNG. Digoxin can produce intracellular hypercalcemia and hypomagnesemia. This can lead on to vasospasm and thrombosis. Intracellular hypercalcemia can activate the G-protein coupled thrombin receptor and PAF receptor producing thrombosis. Intracellular magnesium deficiency can lead onto increased thrombin and ADP/collagen induced platelet aggregation. This leads onto the thrombotic state in mucoid angiopathy. The decreased intracellular magnesium can produce ATP synthase inhibition and the increased intracellular calcium can produce mitochondrial PT pore dysfunction. Mitochondrial dysfunction can contribute to decreased glucose utilisation in CCP and myocardial dysfunction in EMF. Digoxin can produce sodium-potassium ATPase inhibition and intracellular hypomagnesemia. The increased tissue rutile load can lead to rutile-magnesium exchange leading onto intracellular hypomagnesemia. Hypomagnesemia can lead onto upregulated connective tissue macromolecular synthesis contributing to MNG, CCP, EMF and mucoid angiopathy. Acidic MPS deposition in the vessel wall leads to a hose pipe narrowing of the entire vascular tree leading onto mucoid angiopathy. Acidic MPS, collagen and elastin deposition of the heart leads to EMF. Hyperdigoxinemia is important in the pathogenesis of EMF, CCP, MNG and mucoid angiopathy. Digoxin induced sodium potassium ATPase inhibition results in an ATP sparing effect.[41] Eighty percent of the ATP generated is used to run the sodium-potassium ATPase pump. The digoxin inhibition of the sodium potassium ATPase spares this ATP which is then used for lipid and cholesterol synthesis. Fat also fuels insulin resistance by binding to the toll receptor and producing immune activation and immune infiltration of the adipose tissue. Digoxin can also increase lymphocytic intracellular calcium which leads on to induction of NFKB and immune activation.[4] The archaeal cholesterol catabolism can deplete the lymphocytic cell membranes of cholesterol resulting

in alteration of lymphocytic cell membrane microdomains related receptors producing immune activation, monocytic infiltration and reparative connective tissue macromolecular deposition.

NMDA can be activated by digoxin induced calcium oscillations, PAH and viroid induced RNA interference.[4] The cholesterol ring oxidase generated pyruvate can be converted by the GABA shunt pathway to glutamate. Glutamatergic transmission can lead to immune activation. Immune activation can lead to reparative connective tissue macromolecular deposition in EMF, CCP, MNG and mucoid angiopathy. The cholesterol aromatase generated serotonin is well known to produce connective tissue macromolecule especially collagen deposition producing the fibrotic changes in EMF, mucoid angiopathy, MNG and CCP. The archaeal cholesterol aromatase can generate PAH.[19] The PAH can also lead to insulin resistance and CCP. PAH can also inhibit thyroid hormone receptor function contributing to hypothyroidism, increased TSH, thyroid enlargement and MNG. Particulate pollution has been related to vascular thrombosis and can lead to mucoid angiopathy. PAH particles are also known to produce myocardial dysfunction. Thus the actinide, viroid and mevalonate pathway bacteria induced metabolic, genetic, immune and neuronal transmission changes can lead onto endemic EMF, CCP, MNG and mucoid angiopathy. The term archaea and viroid induced endemic cardiovascular and endocrine mucopolysaccharidoses can be used to describe this entity.

The metal actinides provide radiolytic energy, catalysis for oligomer formation and provide a coordinating ion for metalloenzymes all important in abiogenesis.[6] The metal actinide surfaces would by surface metabolism generate acetate which could get converted to acetyl CoA and then to cholesterol which functions as the primal prebiotic molecule self organizing into self replicating supramolecular systems, the lipid organism.[42] Cholesterol by radiolysis by actinides would have

formed PAH generating PAH aromatic organism.[8] Cholesterol radiolysis would generate pyruvate which would get converted to amino acids, sugars, nucleotides, porphyrins, fatty acids and TCA acids. Anastase and rutile surfaces can produce polymerization of amino acids, isoprenyl residues, PAH and nucleotides to generate the initial lipid organism, PAH organism, prions and RNA viroids which would have symbiosed to generate the archaeal protocell. The archaea evolved into gram negative and gram positive bacteria with a mevalonate pathway which had an evolutionary advantage and the symbiosis of archaea with gram negative organism generated the eukaryotic cell.[43] The data supports the persistence of an actinide and cholesterol based shadow biosphere which throws light on the actinide based origin of life and cholesterol as the premier prebiotic molecule. The presence of placer deposits and mineral sands containing monazite, illmenite, rutile and thorium in the Lemurian supercontinent would have made it the ideal place for the primitive cell, nanoarchaea, eukaryote, multicellular eukaryote, primates and humans to evolve. Anthropological studies have provided evidence for the evolution of primates and homo sapiens in the rift valley of Kenya part of the prehistoric Lemurian continent.

The archaea can synthesize magnetite by biomineralization. The archaeal cholesterol catabolism can generate PAH. The archaea can exist as nanoarchaea and can have calcified nanoforms. The actinidic magnetotactic nanoarchaea and its secreted PAH organisms are extremophiles and survive in the interstellar space and can contribute to the interstellar grains and magnetic fields which play a role in the formation of the galaxies and star systems.[44] The cosmic dust grains occupy the intergalactic space and are thought to be formed of magnetotactic bacteria identified according to their spectral signatures. According to the Hoyle's hypothesis, the cosmic dust magnetotactic bacteria play a role in the formation of the intergalactic magnetic field. A magnetic field equal in strength to about one millionth part of the magnetic field of earth exists throughout much

of our galaxy. The magnetic files can be used to trace the spiral arms of the galaxy following a pattern of field lines that connect young stars and dust in which new stars are formed at a rapid rate. Studies have shown that a fraction of the dust particles have elongated shape similar to bacilli and they are systematically lined up in our galaxy. Moreover the direction of alignment is such that the long axes of the dust tend to be at right angles to the direction of the galactic magnetic field at every point. Magnetotactic bacteria have the property to affect the degree of alignment that is observed. The fact that the magnetotactic bacteria appear to be connected to the magnetic field lines that thread through the spiral arms of the galaxy connecting one region of star formation to another support a role for them in star formation and in the mass distribution and rotation of stars. The nutrient supply for a population of interstellar bacteria comes from mass flows out of supernovas populating the galaxy. Giants arising in the evolution of such stars experience a phenomenon in which material containing nitrogen, carbon monoxide, hydrogen, helium, water and trace elements essential for life flows continuously outward into space. The interstellar bacteria need liquid water. Water exists only as vapour or solid in the interstellar space and only through star formation leading to associated planets and cometary bodies can there be access to liquid water. To control conditions leading to star formation is of paramount importance in cosmic biology. The rate of star formation is controlled by two factors: Too high a rate of star formation produces a destructive effect of UV radiation and destroys cosmic biology. Star formation as stated before produces water crucial for bacterial growth. Cosmic biology of magnetotactic bacteria and star formation are thus closely interlinked. Systems like solar systems do not arise in random condensation of blobs of interstellar gas. Only by a rigorous control of rotation of various parts of the system would galaxies and solar system evolved. The key to maintaining control over rotation seems to lie in the intergalactic magnetic field as indeed the whole phenomena of

star formation. The intergalactic magnetic fields owes its origin to the lining up of magnetotactic bacteria and the cosmic biology of interstellar bacteria can prosper only by maintaining a firm grip on the interstellar magnetic field and hence on the rate of star formation and type of star system produced. This points to a cosmic intelligence or brain capable of computation, analysis and exploration of the universe at large - of magnetotactic bacterial networks. The origin of life on earth according to the Hoyle's hypothesis would be by seeding of bacteria from the outer intergalactic space. Comets carrying microorganisms would have interacted with the earth. A thin skin of graphitized material around a single bacteria or clumps of bacteria can shield the interior from destruction by UV light. The sudden surge and diversification of species of plants and animals and their equally sudden extinction has seen from fossil records point to sporadic evolution produced by induction of fresh cometary genes with the arrival of each major new crop of comets.[45, 46] The interstellar PAH aromatic organism is formed from nanoarchaeal cholesterol catabolism. The PAH and cholesterol are the interconvertible primal prebiotic molecules. PAH aromatic organism and nanoarchaeal magnetite can have a wave particle existence and bridge the world of bosons and fermions. The nanoarchaea can form biofilms and the PAH aromatic organism can form a molecular quantum computing cloud in the biofilm which forms a interstellar intelligence regulating the formation of star systems and galaxies. The magnetite loaded nanoarchaeal biofilms and PAH aromatic organism quantal computing cloud can bridge the wave particle world functioning as the anthropic observer sensing gravity which orchestrates the reduction of the quantal world of possibilities in to the macroscopic world. The actinide based nanoarchaea can regulate the earth's carbon cycle by methanogenesis, nitrogen cycle by ammonia oxidation and rain formation by contributing the seeding nucleus. The earth's temperature and global warming and cooling are regulated by nanoarchaeal synthesized PAH from cholesterol and

methanogenesis. The increased nanoarchaeal growth in ocean beds and soil leads to increased methane production and movement of the earth's crust producing tsunamis and massive earthquake leading to catastrophic mass extinction.[47] This nanoarchaeal growth in the Southern ocean and Indian ocean bed due to global warming induced by civilisational progress and human activity would have led to methane burps in the ocean bed contributing to massive earthquakes leading onto Tsunamis. This would have led to catastrophic destruction of the Lemurian supercontinent. The migration of the Lemurian survivors into the Indian sub-continent Indus valley, the Nile valley and the Mesopotamian valley would have contributed to the origin of the Harappan, Sumerian and Egyptian civilization which have all evolved during the same period of human history.[48, 49] The eternal nanoarchaea survive and start the cycle of evolution once more. The actinide based nanoarchaea regulates the human system and biological universe.

The coexistence of EMF, CCP and MNG in South India, South Africa, Australia and South America is thus an indirect evidence for the existence of the Lemurian supercontinent containing these land masses. The actinidic nanoarcheal growth would have led to methane burps in the ocean bed contributing to earthquakes and Tsunamis producing extinction of the Lemurian supercontinent. It also supports the abiogenesis on radioactive actinidic beach sands through the process of surface metabolism. This gives support to the role of actinidic archaea as the third element that controls life and its role in the evolution of the multicellular eukaryote, primates and humans. Civilization and humans would have evolved in the placer deposits and actinidic sand rich prehistoric Lemurian supercontinent in the Indian and Southern ocean.[48, 49]

The increased incidence of EMF, CCP, MNG and autism in the Nair community and the increased prevalence of the Neanderthal anthropometric features in the Nair community and in EMF, CCP, MNG and autism suggests a

Lemurian origin for homo neanderthalis. This suggests an out of oceania hypothesis for homo neanderthalis with later migration to the Eurasian land mass consequent to destruction of the supercontinent by Tsunamis. The Tsunamis would have been precipitated by increased archaeal growth in the oceanic beds and movements in the earth crust produced by released methane. The homo neanderthalis also originated due to increased endosymbiotic actinidic archaeal growth.

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Chapter 2

The Neanderthals and Proto-Dravidian Civilisation - An Oceanic Origin for Rig Veda

The increased prevalence of autism in the Dravidian Nair community has been documented. Autistic children and the Nair population tend to have Neanderthal anthropometric features. There is increased incidence of EMF, CCP, MNG and mucoid angiopathy in the population inhabiting the land masses arising out of the Lemurian supercontinent in the Indian ocean. The South Indian land mass was a part of the Lemurian supercontinent in the Indian and Southern ocean which was destroyed by giant Tsunamis and the population inhabiting the supercontinent are represented by the Dravidian population of South India. The population that migrated from the Lemurian land mass travelled over to the Eurasian land mass creating the urban civilizations of Harappa-Mohenjadaro, Sumeria, Etruscia, Basque, Celts and Egypt. All these ancient civilizations were co-terminus and existed at the same point of time at least 10,000 years BC. The Harappa-Mohenjadaro civilization is considered to be Dravidian and the Harappan script has been decoded and found to be Akkadian-Dravidian. All the Harappa-Mohenjadaro, Sumeria, Etruscia, Basque, Celts and Egypt civilizations spoke the Akkadian-Dravidian language. As has been demonstrated the Dravidian Nair community has Neanderthal anthropometric features and Neanderthal metabolonomics. All the above mentioned civilizations have a possible Neanderthal origin. The Dravidian community is postulated to have evolved in the Lemurian continent.

The homo neanderthalis would have evolved in the Lemurian supercontinent in the Indian and Southern ocean during periods of extremes of weather. During the ice age and periods of global warming, there is increasing growth of the extremophilic archaea in the human body and oceanic ecosystems. The increasing growth of archaea in the ocean bed leads to release of methane which triggers catastrophic earthquakes in the oceans. This precipitates Tsunamis in the Indian ocean and one of them would have destroyed the Lemurian land mass

triggering a mass exodus. This would be the basis of the flood myths in history. The increasing growth of cholesterol catabolizing archaea in the primates leads to evolution of homo neanderthalis. The archaea binds to the toll receptor inducing HIF alpha suppressing mitochondrial function and increasing glycolysis. The archaeal catabolism of cholesterol produces cholesterol depletion and bile acid deficiency. Both these factors induce the metabolic syndrome and insulin resistance leading to trunkal obesity and the Neanderthal phenotype. The low cholesterol levels leads to vitamin D deficiency and rickets generating the Neanderthal phenotype with the characteristic anthropometric features. The cholesterol catabolism and ring oxidation leads to generation of pyruvate which is transferred to the GABA shunt pathway. This generates glycine and succinyl CoA synthesizing porphyrins which are dipolar molecules. The cholesterol catabolism generates digoxin which inhibits membrane sodium potassium ATPase and produces a Bose-Einstein condensate via the dipolar porphyrins inducing quantal perception. The digoxin induced membrane sodium potassium ATPase inhibition depletes the cell of magnesium inhibiting reverse transcriptase activity and HERV generation. The HERV produces genomic flexibility and lack of it leads to prefrontal cortex atrophy. The porphyrin induced quantal perception of low level EMF also leading to prefrontal cortex atrophy. There is cerebellar dominance in the Neanderthal phenotype leading onto increased intuitiveness, quantal perception, spirituality, community spirit, compassion, equality and feeling of oneness with the environment. Thus the Neanderthal phenotype would have evolved in the Lemurian continent with its attached Antarctic land mass in the ice age. The Neanderthals would evolve due to similar mechanism during period of global warming. The evolution near the Antarctic part of the Lemuria and the decreasing availability of sunlight would have contributed to the light skin colour of Neanderthals. The Neanderthals following destruction of the Lemurian supercontinent would have migrated to Harappa-Mohenjadaro,

Sumeria, Etruscia, basque, celts and Egypt creating a global Dravidian civilization. This civilization had a language, was spiritual, had gender equality and social equality. It was also a creative urban civilization in Harappa-Mohenjadaro, Sumeria, Etruscia, Basque, Celts and Egypt.

The Harappa-Mohenjadaro, Sumeria, Etruscia, Basque, Celts and Egypt are essentially Dravidian and neanderthalic. The Harappan civilisation was thus similarly neanderthalic and Dravidian. The initial inhabitants of Harappa were the asuras and they are the Dravidian Neanderthals. The Rig veda had a Harappan origin. The principal God the Rig veda is Varuna - the God of the oceans. Such a concept would have evolved only in a land mass surrounded by oceans and in ocean travelers suggesting a neanderthalic Dravidian origin of Rig veda. The Indus script has been deciphered and is supposed to be logographic and of Akkadian-Dravidian origin. The Harappan civilisation had thus a language, Rig vedic religion, laws and was urbanized. The Harappan civilisation originated in and was made up of Neanderthal Dravidians migrating from Lemuria destroyed by tsunamis. It was a sister civilisation to the other neanderthalic Dravidian civilisations of Sumeria, Etruscia, Basque, Celts and Egypt. It was part of the global Dravidian civilisation.

The Rig veda includes concepts of battle between asuric neanderthalic Dravidians of Harappa and the invading homo sapien devas. The homo sapien devas had a different brain structure with predominant prefrontal lobe and smaller cerebellum. They evolved out of Africa and HERV generation led to a dynamic large prefrontal cortex. They were different phenotypically from the asuric Dravidian Neanderthals. The asuric Dravidian Neanderthals were cultured with language, religion, laws and social organization. The asuric Dravidian Neanderthals were matrilineal. They were more gender-equal with alternate modes of sexual behaviour. The asuric Dravidian Neanderthals were social equal

with a primitive type of communism. The homo sapien Devas did not have a language, laws or religion and were relatively uncivilized. They were more patriarchal and male dominant. The homo sapien deva invasion of the neanderthalic Harappan society led to the generation of Neanderthal hybrids and the hybrids got their religion and language as well as civilized behaviour from the neanderthalic Harappan Dravidians. The basis of human creativity can be related to this interaction between the Dravidian asuric Neanderthals and the homo sapien devas. The Rig veda is basically of Dravidian neanderthalic origin. The initial global language was Akkadian-Dravidian. The Sanskrit language is a modification of the Akkadian-Dravidian script. The homo sapien deva invasion led to the collapse of the global Dravidian civilization of Harappa-Mohenjadaro, Sumeria, Etruscia, Basque, Celts and Egypt. The great religions of the world the Judaeo-Christianity, Muslim and Hindu are basically Dravidian Neanderthal and semitic. The Dravidian Neanderthal community migrating out of Lemuria was the basis of the semitic community and the semitic religions of the world. The neanderthalic brain was attuned to quantal perception and spirituality.

In the present situation of global warming there is an increased growth of archaea in the human system and neanderthalisation of humans. The Neanderthals have returned and the human brain is becoming neanderthalic in behaviour and function. This is responsible for the rising tide of autism, schizophrenia and metabolic syndrome x in the world.

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Chapter 3

The Homo Neanderthalis and the Dravidians - A Common Origin and Relation to Harappan Civilisation and Vedas

Introduction

The postulated lemurian part of the Indian sub-continent in South India is inhabited by the dominant Nair community. The dominant Nair community also has a high incidence of autism. Neanderthal anthropometric features have been described in autism. Neanderthal metabolonomics have also been described in autism. It is possible that homo neanderthalis would have originated in the super continent which occupied the southern ocean. The island of Sumatra is home to another human species homo floresiensis which lived along with homo neanderthalis. This suggests an oceanic origin of homo neanderthalis in the supercontinent in the southern ocean. Recurrent Tsunamis would have forced the migration of homo neanderthalis to the Eurasian land mass especially to Harappa, Sumeria, Etruscia, Egypt and Basque country. There is a high incidence of Neanderthal genes in the Basque population. The language spoken in Harappa, Sumeria, Etruscia, Egypt and Basque country had a Dravidian substratum. The population in these areas are matrilineal and female dominant. This suggests an out of oceania hypothesis for the origin of homo neanderthalis.[1-13]

Materials and Methods

Neanderthal anthropometric features were evaluated in the Nair community and in autism. The parameters checked include dolichocephalic skull, prominent supraorbital ridge and mid face large flat nose and ring finger index finger ratios.

Results

The Nair community had a high prevalence of Neanderthal anthropometric features. Neanderthal anthropometric features were also dominant in autism.

Table 1. *Incidence of autism in Nair, autistic and non-Nair population.*

Groups	Autism	Percentage
Nair	68 cases	68
Non-Nair	32 cases	32
Total	100	

Table 2. *Anthropometric features in Nair, autistic and non-Nair population.*

Groups	Neanderthal anthropometric	Total cases	Percentage
Nair	72 cases	100	72
Non-Nair	21 cases	100	21
Autism	81 cases	100	81

Discussion

Neanderthal anthropometric features were seen in autism and Nair community dominating the part of the Indian subcontinent derived from Lemuria. This suggests a lemurian supercontinent origin of the homo neanderthalis. The homo neanderthalis shared the lemurian supercontinent with another human species called homo floresiensis. Homo floresiensis has been detected in the island of Sumatra in Indonesia. The Nair community dominates the Kerala coast of South India. The Nair community is matrilineal and Dravidian. There are other civilisations speaking the Dravidian language important in human evolution like Harappa, Sumeria, Etruscia, Egypt and Basque country. These civilisations may have a Neanderthal substratum. They would have migrated to the Eurasian land mass from the lemurian supercontinent when it was destroyed by tsunamis in the Indian ocean. The Tsunamis would have evolved due to archaeal overgrowth in

the southern ocean during the ice age. The archaea are extremophiles. The archaeal overgrowth in the Indian ocean bed in the ice age would have released methane. This would have triggered movement of the earth crust, earthquakes and tsunamis. The same endosymbiotic archaeal growth would have led to evolution of homo neanderthalis. The endosymbiotic archaeal metabolism in primates would have generated the species homo neanderthalis. The homo neanderthalis contributed to the civilisations of Harappa, Sumeria, Etruscia, Egypt, Basque and Celts. They were all matrilineal with gender equality. They had a symbolic language predominantly non-vocal. Music, dance and painting as a form of communication were prevalent in these societies. This is exemplified by the Harappan language dominated by Harappan seals and the Egyptian hieroglyphics. The concept of spirituality evolved in these societies including the worship of the mother goddess.

The increased prevalence of autism in the Dravidian Nair community has been documented. Autistic children and the Nair population tend to have Neanderthal anthropometric features. The South Indian land mass was a part of the lemurian supercontinent in the Indian and Southern ocean which was destroyed by giant Tsunamis and the population inhabiting the supercontinent are represented by the Dravidian population of South India. The population that migrated from the lemurian land mass travelled over to the Eurasian land mass creating the urban civilizations of Harappa-Mohenjodaro, Sumeria, Etruscia, Basque, Celts and Egypt. All these ancient civilizations were co-terminus and existed at the same point of time at least 10,000 years BC. The Harappa-Mohenjodaro civilization is considered to be Dravidian and the Harappan script has been decoded and found to be Akkadian-Dravidian. All the Harappa-Mohenjodaro, Sumeria, Etruscia, Basque, Celts and Egypt civilizations spoke the Akkadian-Dravidian language. As has been demonstrated the Dravidian Nair community has Neanderthal anthropometric features and Neanderthal metabolonomics. All the above

mentioned civilizations have a possible Neanderthal origin. The Dravidian community is postulated to have evolved in the lemurian continent.

The homo neanderthalis would have evolved in the lemurian supercontinent in the Indian and Southern ocean during periods of extremes of weather. During the ice age and periods of global warming, there is increasing growth of the extremophilic archaea in the human body and oceanic ecosystems. The increasing growth of archaea in the ocean bed leads to release of methane which triggers catastrophic earthquakes in the oceans. This precipitates Tsunamis in the Indian ocean and one of them would have destroyed the lemurian land mass triggering a mass exodus. This would be the basis of the flood myths in history. The increasing growth of cholesterol catabolizing archaea in the primates leads to evolution of homo neanderthalis. The archaea binds to the toll receptor inducing HIF alpha suppressing mitochondrial function and increasing glycolysis. The archaeal catabolism of cholesterol produces cholesterol depletion and bile acid deficiency. Both these factors induce the metabolic syndrome and insulin resistance leading to trunkal obesity and the Neanderthal phenotype. The low cholesterol levels leads to vitamin D deficiency and rickets generating the Neanderthal phenotype with the characteristic anthropometric features. The cholesterol catabolism and ring oxidation leads to generation of pyruvate which is transferred to the GABA shunt pathway. This generates glycine and succinyl CoA synthesizing porphyrins which are dipolar molecules. The cholesterol catabolism generates digoxin which inhibits membrane sodium potassium ATPase and produces a Bose-Einstein condensate via the dipolar porphyrins inducing quantal perception. The digoxin induced membrane sodium potassium ATPase inhibition depletes the cell of magnesium inhibiting reverse transcriptase activity and HERV generation. The HERV produces genomic flexibility and lack of it leads to prefrontal cortex atrophy. The porphyrin induced quantal perception of low level EMF also leading to prefrontal cortex atrophy. There is cerebellar

dominance in the Neanderthal phenotype leading onto increased intuitiveness, quantal perception, spirituality, community spirit, compassion, equality and feeling of oneness with the environment. Thus the Neanderthal phenotype would have evolved in the lemurian continent with its attached Antarctic land mass in the ice age. The Neanderthals would evolve due to similar mechanism during period of global warming. The evolution near the Antarctic part of the Lemuria and the decreasing availability of sunlight would have contributed to the light skin colour of Neanderthals. The Neanderthals following destruction of the lemurian supercontinent would have migrated to Harappa-Mohenjodaro, Sumeria, Etruscia, Basque, Celts and Egypt creating a global Dravidian civilization. This civilization had a language, was spiritual, had gender equality and social equality. It was also a creative urban civilization in Harappa-Mohenjodaro, Sumeria, Etruscia, Basque, Celts and Egypt.

The Harappa-Mohenjadaro, Sumeria, Etruscia, Basque, Celts and Egypt are essentially Dravidian and neanderthalic. The Harappan civilisation was thus similarly neanderthalic and Dravidian. The initial inhabitants of Harappa were the asuras and they are the Dravidian Neanderthals. The Rig veda had a Harappan origin. The principal God the Rig veda is Varuna - the God of the oceans. Such a concept would have evolved only in a land mass surrounded by oceans and in ocean travelers suggesting a neanderthalic Dravidian origin of Rig veda. The Indus script has been deciphered and is supposed to be logographic and of Akkadian-Dravidian origin. The Harappan civilization had thus a language, Rig vedic religion, laws and was urbanized. The Harappan civilization originated in and was made up of Neanderthal Dravidians migrating from Lemuria destroyed by tsunamis. It was a sister civilisation to the other neanderthalic Dravidian civilizations of Sumeria, Etruscia, Basque, Celts and Egypt. It was part of the global Dravidian civilisation.

The Rig veda includes concepts of battle between asuric neanderthalic Dravidians of Harappa and the invading homo sapien devas. The homo sapien devas had a different brain structure with predominant prefrontal lobe and smaller cerebellum. They evolved out of Africa and HERV generation led to a dynamic large prefrontal cortex. They were different phenotypically from the asuric Dravidian Neanderthals. The asuric Dravidian Neanderthals were cultured with language, religion, laws and social organization. The asuric Dravidian Neanderthals were matrilineal. They were more gender-equal with alternate modes of sexual behaviour. The asuric Dravidian Neanderthals were social equal with a primitive type of communism. The homo sapien devas did not have a language, laws or religion and were relatively uncivilized. They were more patriarchal and male dominant. The homo sapien deva invasion of the neanderthalic Harappan society led to the generation of Neanderthal hybrids and the hybrids got their religion and language as well as civilized behaviour from the neanderthalic Harappan Dravidians. The basis of human creativity can be related to this interaction between the Dravidian asuric Neanderthals and the homo sapien devas. The Rig veda is basically of Dravidian neanderthalic origin. The initial global language was Akkadian-Dravidian. The Sanskrit language is a modification of the Akkadian-Dravidian script. The homo sapien deva invasion led to the collapse of the global Dravidian civilisation of Harappa-Mohenjodaro, Sumeria, Etruscia, Basque, Celts and Egypt. The great religions of the world the Judaeo-Christianity, Muslim and Hindu are basically Dravidian Neanderthal and Semitic. The Dravidian Neanderthal community migrating out of Lemuria was the basis of the Semitic community and the Semitic religions of the world. The neanderthalic brain was attuned to quantal perception and spirituality.

In the present situation of global warming there is an increased growth of archaea in the human system and neanderthalisation of humans. The Neanderthals have returned and the human brain is becoming neanderthalic in

behavior and function. This is responsible for the rising tide of autism, schizophrenia and metabolic syndrome x in the world.

The metal actinides provide radiolytic energy, catalysis for oligomer formation and provide a coordinating ion for metalloenzymes all important in abiogenesis. The metal actinide surfaces would by surface metabolism generate acetate which could get converted to acetyl CoA and then to cholesterol which functions as the primal prebiotic molecule self organizing into self replicating supramolecular systems, the lipid organism. Cholesterol by radiolysis by actinides would have formed PAH generating PAH aromatic organism. Cholesterol radiolysis would generate pyruvate which would get converted to amino acids, sugars, nucleotides, porphyrins, fatty acids and TCA acids. Anastase and rutile surfaces can produce polymerization of amino acids, isoprenyl residues, PAH and nucleotides to generate the initial lipid organism, PAH organism, prions and RNA viroids which would have symbiosed to generate the archaeal protocell. The archaea evolved into gram negative and gram positive bacteria with a mevalonate pathway which had an evolutionary advantage and the symbiosis of archaea with gram negative organism generated the eukaryotic cell. The data supports the persistence of an actinide and cholesterol based shadow biosphere which throws light on the actinide based origin of life and cholesterol as the premier prebiotic molecule. The presence of placer deposits and mineral sands containing monazite, illmenite, rutile and thorium in the lemurian supercontinent would have made it the ideal place for the primitive cell, nanoarchaea, eukaryote, multicellular eukaryote, primates and humans to evolve. Anthropological studies have provided evidence for the evolution of primates and homo sapiens in the rift valley of Kenya part of the prehistoric lemurian continent.

The archaea can synthesize magnetite by biomineralisation. The archaeal cholesterol catabolism can generate PAH. The archaea can exist as nanoarchaea

and can have calcified nanoforms. The actinidic magnetotactic nanoarchaea and its secreted PAH organisms are extremophiles and survive in the interstellar space and can contribute to the interstellar grains and magnetic fields which play a role in the formation of the galaxies and star systems. The cosmic dust grains occupy the intergalactic space and are thought to be formed of magnetotactic bacteria identified according to their spectral signatures. According to the Hoyle's hypothesis, the cosmic dust magnetotactic bacteria play a role in the formation of the intergalactic magnetic field. A magnetic field equal in strength to about one millionth part of the magnetic field of earth exists throughout much of our galaxy. The magnetic files can be used to trace the spiral arms of the galaxy following a pattern of field lines that connect young stars and dust in which new stars are formed at a rapid rate. Studies have shown that a fraction of the dust particles have elongated shape similar to bacilli and they are systematically lined up in our galaxy. Moreover the direction of alignment is such that the long axes of the dust tend to be at right angles to the direction of the galactic magnetic field at every point. Magnetotactic bacteria have the property to affect the degree of alignment that is observed. The fact that the magnetotactic bacteria appear to be connected to the magnetic field lines that thread through the spiral arms of the galaxy connecting one region of star formation to another support a role for them in star formation and in the mass distribution and rotation of stars. The nutrient supply for a population of interstellar bacteria comes from mass flows out of supernovas populating the galaxy. Giants arising in the evolution of such stars experience a phenomenon in which material containing nitrogen, carbon monoxide, hydrogen, helium, water and trace elements essential for life flows continuously outward into space. The interstellar bacteria need liquid water. Water exists only as vapour or solid in the interstellar space and only through star formation leading to associated planets and cometary bodies can there be access to liquid water. To control conditions leading to star

formation is of paramount importance in cosmic biology. The rate of star formation is controlled by two factors: Too high a rate of star formation produces a destructive effect of UV radiation and destroys cosmic biology. Star formation as stated before produces water crucial for bacterial growth. Cosmic biology of magnetotactic bacteria and star formation are thus closely interlinked. Systems like solar systems do not arise in random condensation of blobs of interstellar gas. Only by a rigorous control of rotation of various parts of the system would galaxies and solar system evolved. The key to maintaining control over rotation seems to lie in the intergalactic magnetic field as indeed the whole phenomena of star formation. The intergalactic magnetic fields owes its origin to the lining up of magnetotactic bacteria and the cosmic biology of interstellar bacteria can prosper only by maintaining a firm grip on the interstellar magnetic field and hence on the rate of star formation and type of star system produced. This points to a cosmic intelligence or brain capable of computation, analysis and exploration of the universe at large - of magnetotactic bacterial networks. The origin of life on earth according to the Hoyle's hypothesis would be by seeding of bacteria from the outer intergalactic space. Comets carrying micro organisms would have interacted with the earth. A thin skin of graphitized material around a single bacteria or clumps of bacteria can shield the interior from destruction by UV light. The sudden surge and diversification of species of plants and animals and their equally sudden extinction has seen from fossil records point to sporadic evolution produced by induction of fresh cometary genes with the arrival of each major new crop of comets. The interstellar PAH aromatic organism is formed from nanoarchaeal cholesterol catabolism. The PAH and cholesterol are the interconvertible primal prebiotic molecules. PAH aromatic organism and nanoarchaeal magnetite can have a wave particle existence and bridge the world of bosons and fermions. The nanoarchaea can form biofilms and the PAH aromatic organism can form a molecular quantum computing cloud in the biofilm

which forms an interstellar intelligence regulating the formation of star systems and galaxies. The magnetite loaded nanoarchaeal biofilms and PAH aromatic organism quantal computing cloud can bridge the wave particle world functioning as the anthropic observer sensing gravity which orchestrates the reduction of the quantal world of possibilities in to the macroscopic world. The actinide based nanoarchaea can regulate the earth's carbon cycle by methanogenesis, nitrogen cycle by ammonia oxidation and rain formation by contributing the seeding nucleus. The earth's temperature and global warming and cooling are regulated by nanoarchaeal synthesized PAH from cholesterol and methanogenesis. The increased nanoarchaeal growth in ocean beds and soil leads to increased methane production and movement of the earth's crust producing tsunamis and massive earthquake leading to catastrophic mass extinction. This nanoarchaeal growth in the Southern ocean and Indian ocean bed due to global warming induced by civilisational progress and human activity would have led to methane burps in the ocean bed contributing to massive earthquakes leading onto tsunamis. This would have led to catastrophic destruction of the lemurian supercontinent. The migration of the lemurian survivors into the Indian sub-continent Indus valley, the Nile valley and the Mesopotamian valley would have contributed to the origin of the Harappan, Sumerian and Egyptian civilization which have all evolved during the same period of human history. The eternal nanoarchaea survive and start the cycle of evolution once more. The actinide based nanoarchaea regulates the human system and biological universe.

The actinidic nanoarchaeal growth would have led to methane burps in the ocean bed contributing to earthquakes and tsunamis producing extinction of the lemurian supercontinent. It also supports the abiogenesis on radioactive actinidic beach sands through the process of surface metabolism. This gives support to the role of actinidic archaea as the third element that controls life and its role in the evolution of the multicellular eukaryote, primates and humans. Civilisation and

humans would have evolved in the placer deposits and actinidic sand rich prehistoric lemurian supercontinent in the Indian and Southern ocean.

The increased prevalence of the Neanderthal anthropometric features in the Nair community and autism suggests a lemurian origin for homo neanderthalis. This suggests an out of oceania hypothesis for homo neanderthalis with later migration to the Eurasian land mass consequent to destruction of the supercontinent by tsunamis. The tsunamis would have been precipitated by increased archaeal growth in the oceanic beds and movements in the earth crust produced by released methane. The homo neanderthalis also originated due to increased endosymbiotic actinidic archaeal growth.

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Chapter 4

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 catabolizes 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 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 F 420		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 catabolised 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 photo-oxidation 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 auto-oxidation 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 photo-oxidation 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 photo-oxidation 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 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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Chapter 5

The Human Brain and Evolution, Extinction and Reproduction of Universe - The Universe as a Creation of the Mind

Introduction

The interstellar space is filled with star dust which is postulated to be of biological origin. Fred Hoyle in his hypothesis of the life cloud has put forward an extra terrestrial origin for life on earth. The existence of an extra terrestrial force controlling the genesis and evolution of life on earth has been put forward by many authors. The biocosm theory postulates that the conditions in the universe have been so adjusted to make it possible for life to exist on earth and the universe. This leads to the postulate that the universe exists and reproduces because of life which acts as a quantal observer. This paper deals with the role of extremophilic archaea and RNA viroids extruded from the archaeal cells as primitive anthropomorphic observers making it possible for the universe to exists and evolve. The human race is divided into two species homo sapiens and homo neanderthalis. The homo neanderthalis interbred with homo sapiens to produce a hybrid species. Therefore there are species with more of neanderthalic origin and homo sapien species in earth. The previous studies have demonstrated matrilineal societies with more of neanderthalic origin in contrast to patrilineal societies. The origin of neanderthalic societies and homo sapien communities was ascribed to symbiosis. The Neanderthal species has more of extremophilic archaeal symbiosis occurring in the extremes of climate like the ice age and global warming. The homo sapien species has more of intragenomic RNA viroid/retroviral symbiosis which contribute to the dynamicity of the homo sapien genome. The Neanderthal species were retroviral resistant. The origin of the archaea and the RNA viroids are possibly from the interstellar space as archaeal clouds and RNA viroidal quantal computing clouds which function as extra terrestrial intelligence. The RNA viroids are extruded by archaeal cells. They would have reached the earth via meteoroidal impacts and seeded life on

earth. The archaeal colonies would have organized into the homo neanderthalic species in Eurasia and RNA viroidal colonies would have led to the evolution of homo sapien species in Africa.[1-16] The paper deals with this hypothesis.

Materials and Methods/ Results

The blood samples were drawn from the homo neanderthalic matrilineal species and the homo sapien species. The estimations done in the blood samples collected include cytochrome F420 activity. The generation of RNA viroids in the plasma was studied. The results showed that the matrilineal species of neanderthalic origin had more of archaeal symbiosis while the homo sapien species had more of RNA viroidal symbiosis.

Table 1. *Cytochrome F420 activity.*

		Sudra	Non-sudra	F value	P value
CYT F420 % (Increase with Cerium)	Mean	23.46	4.48	306.749	< 0.001
	± SD	1.87	0.15		
RNA % change (Increase with Rutile)	Mean	4.37	23.59	427.828	< 0.001
	± SD	0.13	1.83		
RNA % change (Decrease with Doxy)	Mean	18.38	65.69	654.453	< 0.001
	± SD	0.48	3.94		

Discussion

The quantal wave form or the Higgs field gives mass and energy to the particles like protons, neutrons and electrons when it interacts with it. The quantal wave forms can generate porphyrins. Porphyrins can have a macromolecular and wave existence which is interconvertible. The porphyrin arrays can self organize and self reproduce. The macromolecular porphyrin arrays would have functioned as intelligent organisms in the interstellar space.

The iron porphyrins can undergo photooxidation and generate a magnetic field. The photonic interaction with the magnetic porphyrins can generate black holes which can collapse to a point before singular density. At this point of time it can undergo rebounce producing new universes. The porphyrin organism with its quantal computing function served as the initial anthropomorphic observer or the lotus of Brahma. The porphyrins would have formed a template for RNA viroids and prions to form. This would have generated primitive archaeal forms. The primitive archaeal cell can extrude RNA viroids generating RNA viroidal clouds. The intergalactic magnetic field generated by the archaea and magnetic porphyrin organism would have contributed to the evolution of star systems and galaxies. The archaeal clouds and RNA viroidal clouds would have served as interstellar intelligence guiding the formation of star systems and galaxies and also functioning as anthropomorphic observers. The meteoritic impacts would have transferred the archaeal and RNA viroidal colonies to earth. They would have self organized into plant and animal species as well as homo sapien and homo neanderthalic species. The homo neanderthalic species are archaeal dominant. The homo sapien species are RNA viroidal dominant.[1-16]

The big bang cosmology postulates the evolution of the universe from the Higgs field. Higgs field is made up of Higgs Boson and top quarks. Higgs Boson can exists in two states. The stable state which is of high energy, low density compatible with the present existence of universe and the unstable state which is of low energy and high density. The universe is presently in the edge of the stable state. The low energy high density state is unstable and can cause catastrophic vacuum expansion leading to the end of the universe. The Frohlich model of quantal brain function postulates the existence of Bose-Einstein condensates in the brain at normal temperature. There are dipolar magnetite and porphyrin molecules in the brain which in the context of membrane sodium potassium ATPase inhibition can lead onto a pumped phonon system producing

Bose-Einstein condensate and bosons in the brain. This boson can become unstable leading onto catastrophic vacuum collapse and the possible extinction of the universe. The Frohlich model of Bose-Einstein condensate formed of magnetic dipolar porphyrins and archaeal magnetite in cellular lipid emulsions can interact with photons generating black holes. This black hole can collapse to singularity. But the collapse happens only upto a particular point following which the density or singularity undergoes a rebounce producing a new universe with a new set of universal constants. Thus the quantal model of brain function can lead onto the destruction and reproduction of universes. The brain can be considered to be a multicellular quantal computing archaeal network in the case of homo neanderthalis. The synaptic networks of the brain parallel the galactic networks of the universe. The brain functions as the universal quantal computer and anthropomorphic observer creating and destroying as well as reproducing universes. This occurs to a lesser extent in the homo sapien brain.[1-16]

The homo neanderthalis species would tally with the biblical fallen angels and the homo sapien species representing the God angel. They are basically visitations of extra terrestrial intelligence as archaeal and RNA viroidal colonies. The homo neanderthalis is an evolved archaeal colony network. The archaea extrudes RNA viroids. The homo sapien species is RNA viroidal dominant with RNA viroids integrated into the genomic DNA. The organization of race and caste system in India points to such an origin. The homo neanderthalic species had an initial habitation in the Indian ocean continent which had a catastrophic extinction by archaeal expansion in the ocean crust which generated dangerous tsunamis during ice age. The Neanderthals migrated to the Eurasian landmass creating the civilization of Harappa, Sumeria and Egypt. They are the asuras of Rig veda. The homo neanderthalic species are fair, matrilineal, asexual, spiritual, altruistic and community organized. These civilizations were basically matrilineal and creative. They were paganistic, secular and atheistic. They were

environmentally conscious living in quantal interaction with the world around creating a feeling of environmental spiritual consciousness. The society formed on this basis functioned as an organic whole in quantal interaction with one another. It was equal, just and functioned as primitive form of socialistic society. The homo neanderthalis species was essentially asexual with the gender equality and matrilinearity. The archaeal overgrowth consequent to global warming can lead to eventual neanderthalisation of the human species and brain. The brain neuronal cortex shrinks due to quantal perception of electromagnetic fields which pollute the globalized warm world. There is also consequent cerebellar hypertrophy. Cerebellar hypertrophy can lead onto schizophrenia and autistic modes of behavior. Cerebellar hypertrophy can lead to cerebellar dysfunction and motor ataxia. The motor ataxia and the clumsiness of movement and speech would have lead to the evolution of abstract painting, dance, music, symbolic speech and eventually speech in the Neanderthals. The neanderthalisation of the human brain consequent to global warming leads to evolution of rock music, dance and modern forms of abstract painting. The Neanderthal brain owing to magnetite mediated increased quantal perception are more spiritual. The Neanderthal community owing to quantal perception functions as one single whole leading to altruism, spirituality, socialism, gender equality and eco-spirituality. This represents the civilisational mode of the eastern world. The societies emerged from the possible lemurian landmass. As they evolved out of extra terrestrial archaeal colonies and intelligence their level of development and intelligence was high. They possessed the original language and the concept of a human Godhead was developed first in their civilization. The Rig veda is the oldest spiritual book of humankind. Most of the Gods described in Rig veda were of asuric origin even Varuna, the principal God. The major philosophical entities of Buddhism and Jainism which are basically atheistic religions preaching social equality, oneness and justice were evolved by the asuras. The homo sapiens

evolved in Africa and migrated to the Eurasian landmass. They had basically an RNA viroidal symbiosis in the brain which gave rise to a practical less creative brain. The homo sapien species are patrilineal, commonsensical and individualistic. The homo sapien community forms the devas of the vedic literature and the Rig veda describes clashes and wars between the asuric inhabitants of Harappa and the invading devas. They over ran the neanderthalic civilizations and created a racial society with the homo sapiens as the ruling class and the Neanderthals as the under caste of sudras. The sudras formed the discriminated underbelly of the civilization. The literature, language and holy books of the asuras were taken over by the uncivilized homo sapienic devas who made it into their own. The future generations of sudras were prevented from learning their language and worshiping their Gods which were taken over by the homo sapienic devas. The homo sapienic devas were theistic, individualistic, unaltruistic and had no communal or societal consciousness. This signifies the civilisational mode of the western world. The archaeal growth in homo sapiens is less. This leads onto less of magnetite mediated quantal perception and universal oneness. This contributes to the individuality, selfishness, unaltruistic behavior, unbridled capitalism and the patriarchal gender unequal society of the homo sapien world.[1-16]

The homo neanderthalic society owing to increased quantal perception is spiritual and feels the oneness of the world and the godliness of individual human beings. This leads onto the philosophy of Buddhism with its sense of atheism and human values. Buddhism and Jainism as well as the Mauryan empire represents victory for the asuric Neanderthals or the sudras. The Buddhist and Hindu society of neanderthalic world considered good and evil as part of the same quantal world representing the universal soul. The godhead and the fallen angel belong to the same quantal world of the universal soul. The concept of right and wrong are not absolute contraindications but part of the same quantal world. The quantal

perception produces information storage after mortality and the idea of reincarnation. The increased world of quantal perception mediated oneness and the cholesterol catabolizing archaeal overgrowth leading to sex hormone deficiency produces the gender equal asexual world. Sexuality is not considered as something apart from religion as evidenced by the tantric schools of Hinduism and Buddhism. It was considered as a form of experiencing oneness as indicated by ideas such as Kundalini. The increased quantal perception leads to a feeling of oneness which produces universal unity. There is no war but universal peace. Eastern societies like China and India are basically quantal docile societies with war being uncommon. The major wars in Hindu history like the Mahabharata and Ramayana war were those between the colonizing homo sapien devas and the native peaceful Neanderthals. The pandava army were the homo sapien devas and the Kaurava army the neanderthalic natives. The God Rama was the head of homo sapien devas and the Ravana the leader of the native Neanderthals. The devas were the head of the colonising homo sapiens from Europe. They could win the Mahabharata and Ramayana wars and the sudric neanderthalic native population was rendered to slavery for generation to come. The independence struggle and Gandhi's attitude to the lower caste and harijans were a part of the same phenomena. The homo sapien world on the other hand due to reduced quantal perception was individualistic. Good and evil were absolutely different as the God and the fallen angel. There was no belief in reincarnation and sexuality was considered as taboo. The homo sapien society owing to its reduced quantal perception and individualistic nature discovered wars and slavery. Wars are essentially a feature of semitic societies and religion. The homo sapien devas are capitalistic and rightist in their attitude to society while the homo neanderthalis is communistic and socialistic. The war between capitalism and socialism is representative of that between Neanderthals and homo sapiens. The phenomena of global warming, archaeal overgrowth and neanderthalisation of homo sapiens

will lead to a more peaceful, globalised, spiritual, gender equal and altruistic society. But the Neanderthal domination resulting from global warming can lead to the society's own demise.[1-16]

The phenomena of climate change and global warming leads onto archaeal multiplication and neanderthalisation of the human race. Archaeal growth occurs in extremes of climate - the ice age and in times of global warming. This results in a return to asuric culture and civilization with its spiritual, environmentally conscious, socialistic, asexual and group identity. The modern world is represented by the Kali yuga where the sudras or the Neanderthals return to a position of power and global significance. This represents the rise of the asuric neanderthalic sudric slaves. This is represented by the rise of neanderthalic eastern societies of China and India as well as the decline of the homo sapien West and Africa. The neanderthalisation of homo sapiens due to archaeal growth can lead to human disease and eventual extinction. The archaea catabolizes cholesterol to generate digoxin. Digoxin functions as the neanderthalic hormone. Digoxin produces membrane sodium potassium ATPase inhibition and increased intracellular calcium and reduced magnesium. Magnesium deficiency leads to mitochondrial dysfunction, vasospasm, dyslipidemia and metabolic syndrome x. The increase in intracellular calcium leads to oncogene activation and malignancies. The increase in intracellular calcium can activate NFKB leading to immune activation and autoimmune disease. The increased intracellular calcium can activate the caspase cascade leading onto cell death and degenerations. The increase in intracellular calcium can increase synaptic release of monoamine neurotransmitters producing schizophrenia and autism. The increase in archaeal growth can produce the Warburg phenotype with increased glycolysis and mitochondrial dysfunction. The increased glycolysis can activate the lymphocyte producing autoimmune disease as lymphocytes are dependent on glycolysis for energy needs. The cancer cells also depend on glycolysis for energy needs. The

Warburg phenotype can lead onto increase in malignancies. The Warburg phenotype and increased glycolysis can lead to poly ribosylated glyceraldehyde 3 phosphate dehydrogenase mediated cell death and degeneration. The Warburg phenotype can lead to magnesium deficiency related insulin resistance and mitochondrial dysfunction leading to schizophrenia. Thus archaeal mediated hyperdigoxinemia and Warburg phenotype can lead to civilisational diseases in the Neanderthal phenotype leading onto its extinction. The archaeal overgrowth in the ocean crust owing to global warming can lead to release of large amounts of methane producing oceanic earthquakes, tsunamis and destruction and splitting up of continents. This leads onto the catastrophic end of the world. As also the archaeal porphyrin and magnetite mediated Frohlich model of Bose-Einstein condensates in the brain generated bosons can undergo catastrophic vacuum decay leading to universal extinction. The magnetic dipolar porphyrins and magnetite in the lipid emulsion of brain cells can be photonically excited generating black holes. These black holes don't reach absolute singularity, but near that point can undergo a phenomenon called rebounce reproducing the universe. Thus the neanderthalisation of human brain and generation of Bose-Einstein condensate of the Frohlich model can lead to extinction and reproduction of the universe.[1-16]

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