
PROLONGED FASTINGS-HOW IS IT POSSIBLE - A HYPOTHESIS

Introduction:

Recently a historical and amazing incidence took place in Ahmedabad, Gujarat, India. A gentleman called Shri Hira Ratan Manek(H.R.M.) aged 64 , a mechanical engineer residing at Calicut, originally belonging to Kutch., Gujarat, has just accomplished a remarkable record- a world record, by doing continuous fasting for 411 days, as per jain tradition.(i.e. taking only boiled water during day time and just no other food or liquids). He had done similar jain fasting for 211 days in 1995-96. This time, he started fasting on 1.1.2000. The unique thing, was that this time he was under continuous day to day medical checking and elaborate medical testing- with a critical evaluation by a team of expert doctors, representing various fraternities of medical science including family physicians, physicians, cardiologist, neurologist, endocrinologist, surgeon, pathologists, genetician, radiologists e.t.c. Also from time to time several teams of physicists, chemists, biochemists, physiologists and several doctors from all different specialities from India as well as abroad have spent time to meet him, examine him. All of them have been impressed with the genuinity of fasting but every body is wondering how this has become possible. You will agree, that as per today's scientific knowledge, this is just not possible and it is extremely difficult to explain this happening, even if the man is taken as superman or genetically a different human being. We now know of about atleast 200 people living without food , on this earth.

The author of this hypothesis, was also the part of medical team and must have met and examined him several times during his unique fasting. The author also ,like any scientist had real sceptic behaviour towards this gentleman and had really taken this gentleman to toughest and most critical –analytic check(keeping in a nursing home more than a month, isolating him in a cube , not allowing any of his relative to stay with him etc) and all other doctors also had scrupulous checking. All of us are fully convinced about the genuinity and really are

wonderstuck. Having satisfied fully with the genuinity , the team suddenly realized that the ball was in the cot of doctors- as now they had to explain, how this gentleman could do this and that too like a normal man he talks a, moves around, meets people, gives lectures and talks intelligently and quite logically i.e. all his systems are normal including cognition.

Ultimately, the job was left to the author to try to hypothesize something.

The author had accepted it. But he realized that he was in deep waters. Its one the most difficult tasks, he had ever had in the past. Really speaking, this is a subject of occultism and spiritual science, and hence our experimental science had natural limitations. So the author has tried to evolve a hypothesis, which starts with logic, then available scientific knowledge is applied and ultimately again logic leading to “Speculative VISION” is applied. Hence, he does not claim that things presented here are all the way scientific, but he assures you a great experience, opening up “the dialogues” and assures that you will have a chance to examine several fantastic possibilities. Who knows truth may unfold itself in coming years, from these possibilities. The author has already received several queries from internet, after floating it on the same.

THE HYPOTHESIS

This is indeed unique. You will agree that such a prolonged continuous Jain fasting for religious (Spread of Ahimsa and other high mottos) & scientific purposes (to create awarness about Sun-energy) & also aimed at solution of four way human crisis (Physical, Mental, food & neurological) under scrupulous daily medical supervision is unheard of. It’s just fantastic, and absolutely amazing, but this is not a myth. It's not happening in Himalayas or distant jungles; it is happening in Ahmedabad, Gujarat (India) in the continuous presence of public & under strict medical check & supervision by team of expert doctors.

There is no reason to be sceptic; one may personally come and himself or herself check & scrutinize; as we doctors have done all these months & fellow men have been staying with him all throughout. Several visitors also see him throughout the day and night. No body ever had encountered even a doubtful situation. All of them have been satisfied with the genuinity. Even he was kept in a nursing home for more than a month for a critical checking as well as medical tests. He has been isolated from his relatives who are staying at Calicut . He is kept in a two room flat, which is totally devoid of any kind of food.

Several doctors from India, Gujarat, Ahmedabad and abroad have from time to time examined and are unable to explain the scientific basis from current clinical knowledge, while declaring the genuinity of fasting. A team of medical doctors have supervised (medical examination as well as laboratory tests) throughout these fasting. This comprise of Dr. Sudhir Shah M.D.,D.M.(neuro), Dr. Nalin Gheewala M.D., Dr. Viresh Patel M.D., Dr. Navneet Shah M.D.(Physician

and endocrinologist), Dr. K.K.Shah M.S. Gen.Surgery, Dr.Kalpesh Shah M.D.Radiologist, Dr. Gaurgey Sutaria Radiologist, Dr. Jayesh Sheth, Dr. P G. Shah, Dr. Prakash Doshi , (family physician) and several others.

Today, it is 411th day of Shri Hira Ratan Manek's fasting. (on Dt. 14th Februry 2001) He started fasting from 1.1.2000. He is on total fasting as per Jainism. He is consuming only boiled water daily between 11 a.m. to 4 p.m. only and no other liquids and just no other food, No I\V or I\M injections. Medical checkup commenced few days before fasting programme & is continued till to day. It consists of daily written record of pulse, blood pressure, respiration, Temperature, water intake, urine output, weight etc. Relevant Hematological and biochemical (basic and few advanced) tests are done periodically i.e. monthly or fortnightly. ECGs are taken regularly. Ultra Sonography, EEG, CT.Scan and M.R.I. Brain have been taken at the end of one year and a team consisting of general practitioners physicians, surgeons, Cardiologists, endocrinologist and a neurologist have been examining him regularly and periodically from first day of fasting. Except for loss of 19 Kg weight, (Which is now stable with no further weight loss for last 3 months) a slight reduction of pulse rate and B.P. and definite reduction of respiratory rate (from 18 to now 10/minute) amazingly, there is no other medical abnormality. Even the brain and mental capacities are absolutely normal. There are hardly any findings. He has stopped passing stool after 16th day of fasting and urine output is maintained at around 600 to 800 c.c. His blood sugar is between 60 to 90. Rest of the parameters are all normal.

Most surprisingly, he had himself climbed the famous Shatrunjay mountain (Palitana hill) on 4.4.01, on 401st day of his legendary fasting along with 500 fellowmen without anybody's help, within 1.5 Hrs. only.

It is just amazing. Isn't it ?

But how do we hypothesize it ? How does science look at it ?

As per our present day scientific understanding, under normal circumstances of prolonged starvation, (under accidental situation or extraordinary situation,) human being loses weight fast. First carbohydrate is utilized. Then ketones appear in urine in first week. Then proteins are burnt. Later fat are mobilized from body stores and used. Before that, the person becomes dull, lethargic and irritable, his logic and reasoning fails and vital parameters fall and within 8 to 10 weeks, as per science, the physical existence will be challenged.

Here, there has been no such illeffect. How do we explain this ? How does his energy mathematics work? How he is still so intact with normal intellect, normal mental function? So far, there is no solid thesis (as this is the first event in the world, under medical supervision), there has to be some logical, scientific hypothesis. It explains quite a bit, but also leaves few questions unanswered, for all of us to further analyses. It also opens, at the same time, several new avenues for the coming time to work upon it. (e.g. issue of obesity, the possibility of cosmic energy, the functions of pineal gland)

Here, we propose a hypothesis which has four basic steps to explain energy-metabolic mathematics. i.e.

- (1) Reducing calorie requirement by chronic adaptation.
- (2) Deriving basic energy from cosmic sources-chiefly, 'sun energy'-solar energy.
- (3) Utilizing the energy in the efficient way and recycling the same in his own body.
- (4) Genetically or phenotypically a different body dis-position.

Let us discuss the proposition step by step.

(1) Chronic Adaptation Syndrome :

As the body and the mind adapts to chronic stress in a healthier way, as compared to acute stress, similarly body's adaptation must be different to chronic fasting (beyond 30 days) as compared to acute fasting (e.g. 3 to 15 days.) No body knows which is the exact point, where body adapts chronically, but 30 days sound reasonable time though it may vary individually. This is some kind of hibernation.

The routine calorie mathematics sounds logical and applicable to acute fasting where carbohydrates break up first, ketones appear in urine and weight loss starts; fat is burnt and muscle mass reduces and vital functions and mental capacity may start slowing down. Thus in acute fasting, energy dissipated must come from stored sources of body to match 1:1 ratio of calorie consumption against utilization.

In chronic adaptation; the metabolism of body must slow down. The body needs are reduced to the minimum. This is possible by down regulation of cellular and receptor function, altering the energy metabolism to the lowest possible extent. Oxygen and water are supplied to cells as basic things, At this stage, the hunger centre will become depressed and satiety centre will be activated. So there will not be any feeling of hunger or food craving. Here hypothalamus(the master of automatic nervous system and the organ of behavior) plays an important role.

It may be possible for such an individual to do routine activity with very low amount of energy or calories as 500-600 calories, to sustain cellular metabolism. In truly hibernating animals and human beings, the energy need may go down further. Thus depending upon the activity of the individual, the energy must be provided.

At the cellular level, mitochondria may play a vital role in energy storage by proliferation. Other organelles of the cell may also help in the process of chronic adaptation.

(2) Deriving Energy from Cosmic sources - Solar Energy :

Whatever low amount of energy, that is required, must come from some source. He is only on boiled water-which as per science is having hardly any

caloric value. or does it really supply some energy ? He doesn't take any type of food or liquids except boiled water. So to run the cellular metabolism and to perform daily activities, he must be deriving energy from surroundings. He is living on earth, where he is exposed to the Sun, Earth, Water, Plants and human beings and other living animals. These are the options available to him. We will call these, cosmic sources of energy.

So most likely, he is drawing energy from these cosmic sources - Cosmic energy. Hence more correctly **it is energy mathematics rather than calorie mathematics**; a concept worth understanding. Out of all cosmic sources, The SUN is the most powerful & readily available source & has been used for energy, by sages & rishis since ancient time, *including lord Mahavir, Tibetan lamas & other Rishis*. The solar energy has two components: the light and the heat.

Mankind is also using solar energy for running solar cooker, solar heater, solar car through solar batteries etc. Similarly Shri Hira Ratan Manek(H.R.M.) has almost converted him self in to a kind of a solar cooker and has solar batteries activated in himself. The solar energy has two components, the light and the heat (temperature) Luckily India has a rich potential to become superpower as we have a constant availability of solar energy, all throughout the year.

How then SUN energy is received ? The Brain & the mind are the most powerful recipients in human body. The retina & the pineal gland (The third eye or the seat of soul as per Rene Descartes) are equipped with photoreceptor cells & may be considered photosensitive organs.

The method practiced by Shri Hira Ratan Manek : He suggests to look at the rising sun daily, with naked eye and without blinking the eyes, as far as possible. To look for a few seconds initially and then every week to increase by few few seconds to ultimately reach up to several minutes. Eyes and specially retina must be healthy.

As plant kingdom thrives on chlorophyll & photo synthesis, directly dependant on the Sun, similarly some kind of photosynthesis or photoanalysis must be taking place; when we hypothesize Sun energy .Through complex ways & distinct pathways this energy must enter the body. Is it a direct entry in to the physical body or it enters through auras of human body (please refer karalean photography)is yet to be examined. It is quite possible that human aura plays a modulating role for allowing this energy, in to the physical body.

There is a **pathway** from the retina, to the hypthalamus, called the retinohypothalamic tract. This brings information about the dark & light cycles to supra chiasmatic nucleus (SCN) of the hypothalamus. From the SCN, impulses along the nerve travel via the pineal nerve (Sympathetic nervous system) to the pineal gland. These impulses inhibit the production of melatonin. When these impulses stop (at night or in dark, when the light no longer stimulates the hypothalamus) pineal inhibition caeses, & melatonin is released. **The pineal gland (or the third eye) is therefore a photosensitive organ & an important**

timekeeper for the human body. The unexplored process of energy synthesis & transformation from the sun energy perhaps partly occurs here :

While going through the details of recent scientific literature & also comparing it with ancient Indian spiritual texts, as well as Western occult & new age, following things are apparent.

The activation of pineal gland is the key step in psychic, spiritual & energy transformation processes. Here in this gland, energy processing & re distribution might be taking place. **Pineal gland is the subtle commander of all endocrine glands, therefore controlling the humoral system. Through secretion of melatonin, it also regulates the circadian rhythm, sleep wake cycle & it also slows down aging process.** It has psychic properties & is the seat of soul or mind - so called the third eye. (Possibly that is why Tilak is done in the forehead- in front of pineal and yogis do meditation with closed eyes, concentrating in between two eyebrows.

It is the Ajna (Ajna) chakra of tantrik system. Its activation can be done with prolonged yoga & meditation techniques or through practice of solar energy. The later does not use classic yoga steps.

As per recent research in animals; Pineal gland also inhibits growth & metastasis of some tumors. It has a stimulatory effect on the immune system. In birds & other animals, it has a magnetic material & is therefore **the navigation centre in birds**. Scientists are looking at magnetic, navigatory properties of pineal gland in humans. Further, through the **secretion of serotonin**, it is involved in psychic experiences, synaptic transmission and several unknown powerful occult powers. A lot of research is required to validate this though some initial studies have already supported this view e.g. the chemical structure of LSD(a drug used for psychic experiences)is similar to serotonin.

So pineal activation and charging through solar energy is the vital step & that is the doorway of energy highway. This may be *kundlini shakti* activation, in other words.

Normal Pineal gland measures 6 x 8 mm in human body. As per C.T.Scan & MRI Scan reports of Mr. Hira Ratan Manek. it is 8 x 11 mm. (enlarged !) This may indirectly support the important role of pineal gland in energy transformation. However it is not necessary that anatomic enlargement always reflects hyperfunction . The increased hormonal secretion i.e. melatonin and serotonin levels should also be measured. Even without anatomical enlargement, there can be hyperfunction. Then we should study the pineal size and hormonal level in all psychically and spiritually evolved people or all people with extraordinary capacities.

Ever since mankind has started ignoring the psychically & Spiritually equipped pineal gland it has fallen on merely physical-material plane & therefore endless pains have fallen on the mankind.

Mankind must now relearn to activate pineal & the other psychospiritual bodies either through cosmic energy dynamics or through practice of Rajyoga or the Tantrik ways or other such practices. (One can imagine that high voltage energy transmission through shaktipat as occasionally yogis do to transfer energy in to their esteem disciples may be utilizing pineal gland or similar bodies) **Kundlini Shakti** is said to be activated through these & happiness & bliss with peace are bound to follow.

This solar (light and heat) energy may be transformed into electrical, magnetic or chemical energies in body. Once processed, this energy must be transported & must be stored somewhere. Actually the ultimate form of all energies is light. Energy & light can be transformed in to matter & back again to energy.

Hypothalamus is the commander of autonomic nervous system & Pineal gland is in proximity to hypothalamus and is connected to it through autonomic nerves. So it is logical that new energy transportation may either activate this system or it may use this system as vehicle. Parasympathetic nerves & its hormones & chemicals may be more useful than sympathetic system. As sympathetic system increases body needs (e.g. thinking, fighting stress, excitement etc.), parasympathetic system is known to reduce the energy needs. It keeps the person serene & at mental peace and alters the metabolic requirements to a lower state & puts it to sleep. We can also hypothesize that there may be other hormones or chemicals too, involved in this complex energy transportation system. It is well known that pituitary and pineal glands are well connected through regulatory hormones and nerves. While pituitary gland expresses and controls physical body, we have seen that pineal expresses and controls mainly mental and spiritual bodies. Thus intricate balance and harmony between the two glands is very crucial point in the total (physical, mental, Emotional and spiritual) health or wellbeing of a human body and it must be any way achieved.

The role of temporal lobe & limbic system also may be important. It may work as a regulator, if not receptor and may be psychically involved in directing the energy in proper pathways. Deep into the limbic systems or in the parts of medulla oblongata, this energy may ultimately be stored & from time to time, may be recalled, charged or recycled. Medulla oblongata has all vital centres & therefore can be proposed as store of vital energy.

Thus there are energy receivers or receptors, processors, analyzers, modulators, transformers, transporters, stores (organ or bodies) etc. to explain the energy logistics.

As this form of energy mathematics is different from what we conventionally are used to, in form of food & calorie mathematics; we will call this food as microfood or mind utilization food (Manobhakshi Aahar).

Here, we have discussed about the Sun energy, but one may learn to use any source from the cosmos, ie. Air, water, plants, earth, living humans, animals etc. This may be called Surya vigyan, but equally there is Chandra vigyan and Vanaspati vigyan as mentioned in our ancient texts. Also apart from the retina & the pineal gland, skin & other senses may also be responsible for receiving energies from these different sources. In short this opens up, tremendous possibilities, which will need a very sincere effort from us to crystallize and to practice it for welfare of the mankind..

This microfood can solve, food crisis on earth & in fact is the only possible food in present context for somebody who wants to be a long-term space traveler or planet traveler. Amazing! It is time to note that our routine food is not the only source to sustain the body.

The role of mind : What ever said, in this step, (i.e. the step II of deriving the energy from the sun & transforming it in body.) the mind may be playing the crucial role. It is wellknown that the mind has enormous capacity, (The soul has even further or infinite capabilities). Through *Sun Tratak & Meditation*, tremendous capacities are attained, which will bring tranquility to mind and also slow down metabolism, as mentioned in step I. Mind can do every thing including so called miracles. It can revitalize body, it can heal diseases, it can know things in advance & it can manipulate laws of physics. The phenomena of telepathy, reading somebody's thoughts/ teleporting the things, bending the items, all are very wellknown examples of human mind capacities. If a strong mind decides to do unusual fasting, it can certainly do. It is unclear till this date whether mind is a separate entity or the pineal gland it self. According to some, each cell has mind and thus in other words mind is a diffuse electromagnetic and biochemical continuous process and one thing is clear, that out of all body organ, mind has a direct access to cosmic energy. Our mind is an invagination or outpouching of cosmic mind and cosmic energy and pineal in that case would be the knob-important hub of the mind.

The faith & blessings from *Yogis & Gurus* have their own roles in sustaining oneself in adverse situations. On religious days, under high spirits & a cultivated atmosphere, a few people surprisingly do unusual things; like walking on fire or piercing pointed swords, through their bodies without damaging themselves. On similar lines, if some one does fasting, these blessings and faith may help to pull one through the period of physiological problems; till one enters chronic adaptation phase.

(3) Energy Economy in efficient ways and re-cycling the energy in his own body:

Those, who are chronically deprived of energy, learn to utilize the available energy in more efficient ways - so that even at the low energy state body metabolism and vital functions including nervous system do not suffer. This is quite logical & one can imagine this happening in the individuals caught in natural

calamities, or those left alone in the sea or survivors of high altitudes after plane crash etc... managing to live for several days or weeks, without food.

Also, one can hypothesize that these people may be recycling the energy in their own bodies. This may be done, through complex mechanisms, involving neural & humoral organs. Solar energy, dissipated through body may get absorbed into the earth & while walking bare footed on the soil, standing in the sun, may help absorbing this energy through skin of toes, sole of feet; as Shri Hira Ratan Manek does regularly & always preaches to do so to recycle the energy. This may be related to the principles of acupressure or reflexology.

(4) Genotypically or phenotypically a different body predisposition : We should also examine this aspect carefully, as this leaves scope for an important discussion - whether each & every individual can use sun energy & if so, how efficiently?

Only time can answer this. But it is possible that each individual has a different genetic code and also each body has different physical capabilities. Hence, one may be able to receive this **Solar energy** more readily, can transform & store it in a better way & also can utilize more efficiently & even recycle it - while other person may not be able to do it to the same extent.

Hence, scientific experiments must be taken up, if possible on a randomized base upon volunteers with control population. However, leaving such study aside for the time being, it is possible that many people can do this experiment very successfully under supervision. Prior body Checkup & particularly retinal-ophthalmic checkup is mandatory and under strict medical guidance, a graded time bound experiment upon volunteers may be taken up.

Other possibility is that, we can use gene-cloning technique. By preserving the celline of Shri Hira- Ratan- Manek, we can clone him or use his gene for gene transfer therapy.

Whatever we do; use cloning or train the whole mankind, it can change the destiny of mankind. First of all, the food crisis will be solved. Through activation of this supreme energy in body & transforming it in electrical, chemical & magnetic forms, person can not only enjoy a state free of diseases but can gain positive health with a vibrant aura. His luster can impress even enemies & enmity may dissolve. His psychological disease can disappear. With improvement of mental & intellectual capacities one may be able to use brain power upto 90 to 100 %, as against to 3 - 10% as we normally do.

There will be reign of peace & prosperity. As there is no food, the bad thoughts and ill feelings will be stopped, so eternal peace is bound to follow.

This will also question the routine calorie mathematics.

This challenges the common calorie based science. Its limitations are highlighted. At the same time the complex issues of obesity & malnutrition can be readily explained through the concept of solar and cosmic energy. It is possible

that obese people, though not eating excess food, still receive energy from cosmic sources, unknowingly explaining their obesity.

The concept of cosmic energy can be used thus for total uplift of mankind at physical mental, intellectual, emotional & spiritual levels. It has tremendous applications. One can utilize it, the way he can. Extensive scientific research work therefore should be immediately taken up, by appropriate authorities, including bioscientists & medical personnel, to answer all these issues. Awareness of all human beings must be created simultaneously and all those who are interested should work on this highly potential and fascinating project, of cosmic energy as well as potentialities of the pineal gland and other related issues discussed in these pages.

Ref. case study of Mr. Hira Ratan Manek : 411 fast :completed on 14.02.2001 and parna was done on 15.02.2001 in presence of about a lakh people with graceful presence of jain sadhus, several Hindu saints, H.E. the Governor of Gujarat, respected Mayor of Ahmedabad and several other highly placed people.

* **Dr. Sudhir V. Shah** M.D., D.M. Neurophysician
206-8, Sangini Complex, Nr. Parimal Crossing, Ellisbridge, Ahmedabad-380 006.
Ph. : (c) 079-646 70 52 (R) 079-662 17 42.

Hon. Neurologist : H.E. The Governor of Gujarat, India.
President : Asso. of Physician of A'bad. (97-98)
Hon. Asst.Prof. of neurology : Sheth K.M School of PGMR
Smt. N.H.L. M.M College
Hon. Neurologist : V.S.Hospital, Ahmedabad.
Jivraj Mehta Smarak Hospital

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From : (1) Dr. Navneet Shah M.D. FICA (U.S.A.)
Physician Endocrinologist (C) 6425566.
(2) Dr. Gargey Sutaria (M.D.) &
Dr. Kalpesh Shah (M.D.) Radiologist
Usmanpura C.T.Scan Centre.

Clinical Assistant :

Dr. Nalin Gheewala M.D. Physician.
Dr. K.K. Shah M.S. Surgeon.
Dr. Viresh Patel M.D. Physician.
Dr. P.G.Shah M.B.B.S.
Family Physician.
Dr. P.D.Doshi M.B.B.S.
Family Physician.