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What bolt can bar true love in fact
The trickling tears reveal the heart

அன்பிற்கும் உண்டோ அடைக்குந்தாழ் ஆர்வலர்
புன்கணீர் பூசல் தரும்.

Thirukkural- 71
(English Translation By
Kaviyogi Shuddhananda Bharatiyar)

In this issue....

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Second Wrapper

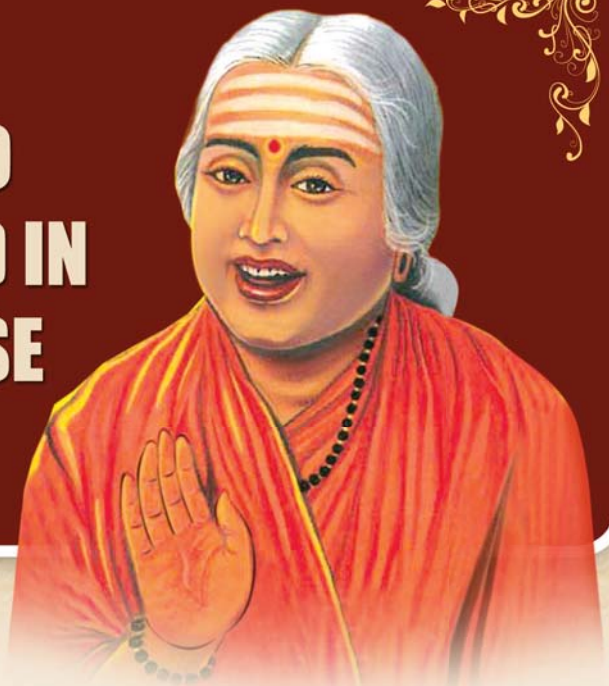
The enchanting Papanasam Water Falls

Third Wrapper

The placid Yercaud Lake

AVVAIYAAR: TAMIL POETESS WHO MEASURED THE WORLD IN SINGLE LINES OF VERSE

- Dr. M. RAJARAM, IAS



India is a country which enjoys the grace of god in abundance. It also has the grace of the seers in an equal measure. The seers came at regular intervals and spread the fragrance of their grace. A beautiful country that rolled in wealth, rejoiced in learning and practised compassion. India proclaimed the message of peace to one and all --- several moral codes sprouted and blossomed in this sacred soil; several temples too, to stand testimony to them. Their history is equally varied. Books of wisdom left behind by sages in great, beautiful, ancient languages, are also aplenty. Amidst such great tongues, our own Tamil still shines with evergreen youthfulness and undiminished glory.

One message every Tamilian should contemplate and be proud of is the hoariness of our own mother tongue Tamil. American philologists have concluded that it was Tamil which was spoken when people of the world lived as one family and spoke one language during the early evolutionary days of the globe. Likewise, scholars opine that Tamil was the lingua franca of the world.

There are numerous books of divine wisdom in the enchanting Tamil language. In these books, there is no dearth of subject matter, profundity of treatment or of the benefits that flow out of them. These Tamil books exude divinity and are a class apart in clarity, taste and style.

Avvaiyaar's 'Vinayagar Agaval' is one such book. Simple in style, it can make children wise. It is also a sweet and elegant prayer, suitable for children who worship Vinayaka. Vinayaka worship is a very, very simple form of worship – making a form out of clay, bedecking it with 'Arugam' grass and offering balls made of puffed rice. Avvaiyaar was an

expert in writing books for children. Her works are easy to commit to memory even by children and are profound in significance to be realized in later years. People of great wisdom alone are capable of writing books that appeal to children and others alike.

'Aathichoodi' is another work of Avvaiyaar, the moralist with a profound knowledge of music. Her other books include Kondraivendhan, Moothurai, Nalvazhi, Gnanakkural and Panthan Andhadhi as also several poems sung on particular occasions.

Among the women scholars of the Sangam Age, there was one with the name Avvaiyaar. When Kambar and other poets were basking in glory, Avvaiyaar as a woman poet matched them. Her songs find a place in Puranaanooru and other Sangam literature.

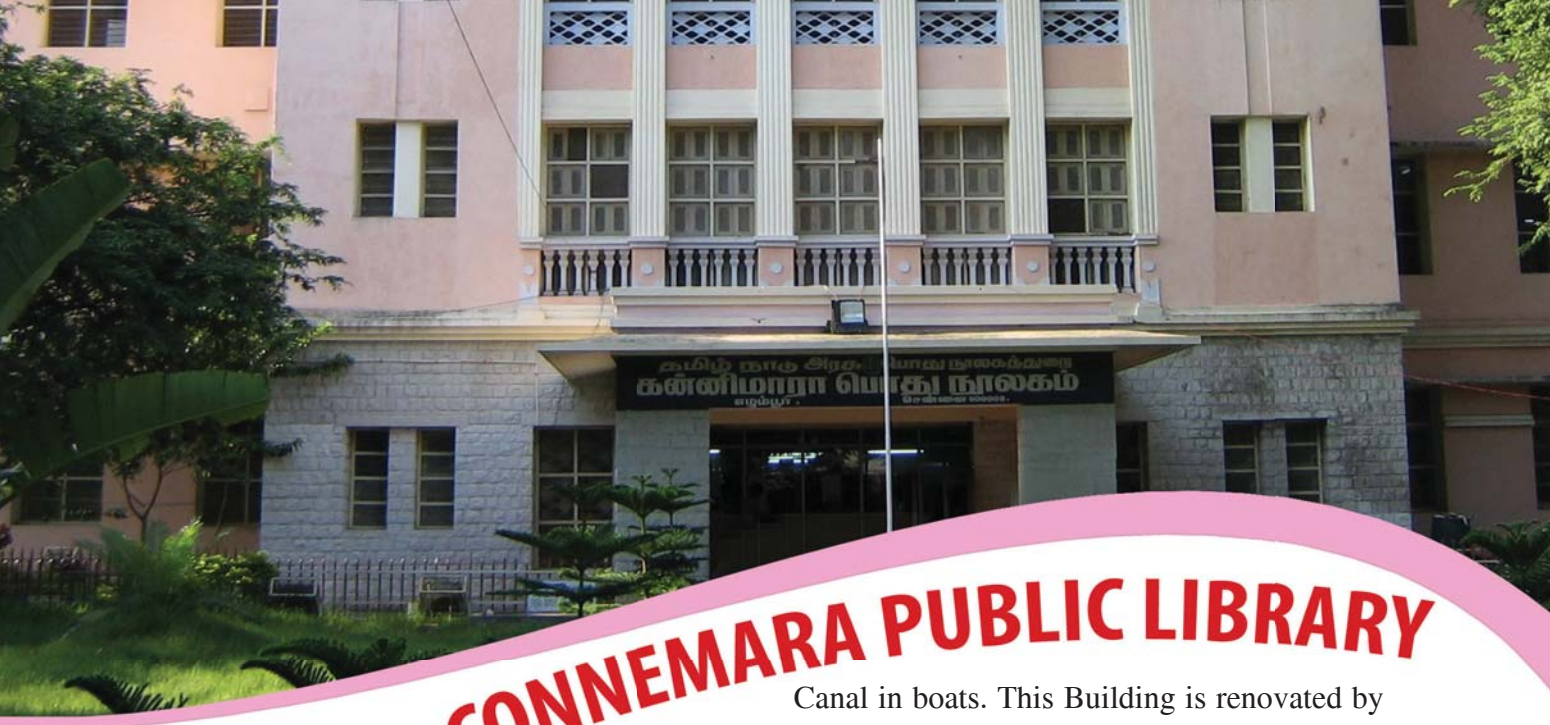
Many stories circulate about Avvaiyaar. We have heard in our childhood days and later read in text books, how the Tamil God Muruga came in disguise as a cowherd and conferred grace on Avvaiyaar after engaging her in banter over two varieties of fruit – one that was hot and one that wasn't ("Sutta Pazham Venduma; Sudaadha Pazham Venduma?"). Sangam Literature speaks about Avvaiyaar's longevity after consuming a special country gooseberry ("Nellikani") gifted by the munificient Adhiyamaan. However, present-day research scholars aver that the Avvaiyaar of the Sangam Age and the one contemporary to Kambar were different persons.

The name Avvai is known both to the educated and the uneducated in Tamil Nadu. It is very rare to find one who has not heard of Avvaiyaar. This is because of Aathichoodi and other works of ethics penned by her. These are great works that will ever be cherished by the people of Tamil Nadu.

Even those with a smattering knowledge of Tamil would have read at least one of Avvaiyaar's moral books. The code of conduct and life science ideas that form the essence of great works are presented with clarity in small aphorisms in Aathichoodi and Kondraivendhan. Arranged in alphabetical order, they are easy to memorize.

That Aathichoodi should be taught first and Kondraivendhan should be taught to children after leaving a gap of time is borne out from the fact that the former is in very short sentences and the latter in somewhat longer sentences.

With great compassion and wisdom, Aathichoodi is sung, starting with the directive – 'Aram seyya Virumbu' (Desire to donate). The idea is that the ethics of life should be embedded in the minds of people at a very young age. Aathichoodi's greatness is to be lauded. It is a woman who has devised such a system of education for the youth- to learn and profit. The credit goes to Tamil Nadu. ■



CONNEMARA PUBLIC LIBRARY

ORIGIN

In recognition of the importance of the Library Service, it was decided to establish a First True Public Library in Tamil Nadu during the 19th century by an enlightened Administrator Lord Connemara, the then Governor of Madras during 1886-1890. The Foundation Stone for the Library was laid on 22nd March 1890 and was formally opened on 05.12.1896. The Library so founded was named after Lord Connemara to perpetuate his memory in Madras in recognition of his efforts.

BUILDINGS

Designed by H. Irving, the Consulting Architect to the Government of Madras, the Connemara Public Library is a Semi-Circle End oblong building constructed in Indo-saracenic style. It is a magnificent hall with a splendid reading room and beautiful teak wood book-shelves. To watch its ceiling is an aesthetic appearance to our eyes. The roof is truncated semi-circle. The truncated top has a wooden ceiling but the two curved sides are made by coloured glass pieces artistically cemented to one another. Ornamental acanthus leaves and flowers adorn with marble slabs brought from Krishna District through the Buckingham Canal in boats. This Building is renovated by the Archaeological Survey of India, Chennai with an expenditure of Rs. 1.21 crore, to preserve the cultural heritage of India, with the financial assistance from the State and Central Governments.

To cope up with the increasing stock, a three-storied building with 71,700 sq.ft. was constructed in 1973. Further to accommodate the increased stock of books another three-storied building with 21,823 sq.ft. was added in 1999.

GROWTH

The Library became the State-Central Library with effect from 1st April 1950 under the provisions of the Tamil Nadu Public Libraries Act, 1948. And from 10th September 1955, it became one of the Four Depositories for Indian Publications under the Provisions of Delivery of Books and Newspapers (Public Libraries) Act of 1954, as amended. In 1955, the Library became UNESCO Information Centre to serve as Depository for selected Publications of UN and its allied agencies. It also serves as Depository for Asian Development Bank Publications since 1992.

MEMBERSHIP

Membership is open to any resident of Chennai and its vicinity who is 15 years of age and above. Every member can borrow maximum of six books for a period of fourteen days depositing Rs. 300/-. An annual subscription of Rs. 50/- per member is collected every financial year.

WORKING HOURS

Connemara Public Library serves the public daily from 9.00 A.M. to 7.30 P.M. on weekdays and from 9.30 A.M. to 6.00 P.M. on Sundays without any break throughout the year. The library remains closed on three National holidays and six selected festival holidays every year. i.e. Pongal, Pooja Holidays, Ramzan, Deepavali and Christmas.

COMPUTERISATION

The last decade of the 20th Century i.e. in the early 1990's Connemara public library started the path of computerization with a single PC/XT running on dbase software. However it was in 1998 that a giant leap was taken with the purchase of two servers and twelve nodes with a budget of Rs. 8 lakh. These computers were put in good use by the highly efficient staff who helped to input an amazing 3.5 lakh records.

In April 2003, the budget increased to Rs. 18 lakh and two more servers with six nodes with latest configuration were acquired reflecting one more step towards total computerization.

The next important event is started in June 2003 with the introduction of OPAC (Online Public Access Catalogue). Also a Web Site for library information is added as a part of total computerization.

DIGITISATION

Scanning services introduced in the year 2006 by which rare and old documents are scanned and preserved for posterity.

READER'S FORUM

A well established Reader's Forum is functioning in the library. The Forum is in charge of providing xerox facilities to the readers. Apart from this the Forum organizes literary meetings and book releasing functions in the library for the benefit of the readers.

CONCLUSION

Connemara Public Library is a truly multifaceted institution providing information, inspiration and recreation to research, reference and general reading public not only to the residents of Chennai but also to the entire Country. In this noble task, the highly motivated and dedicated staff members are constantly updating to realize the needs of the readers and everyday challenges in the profession.

Web address:
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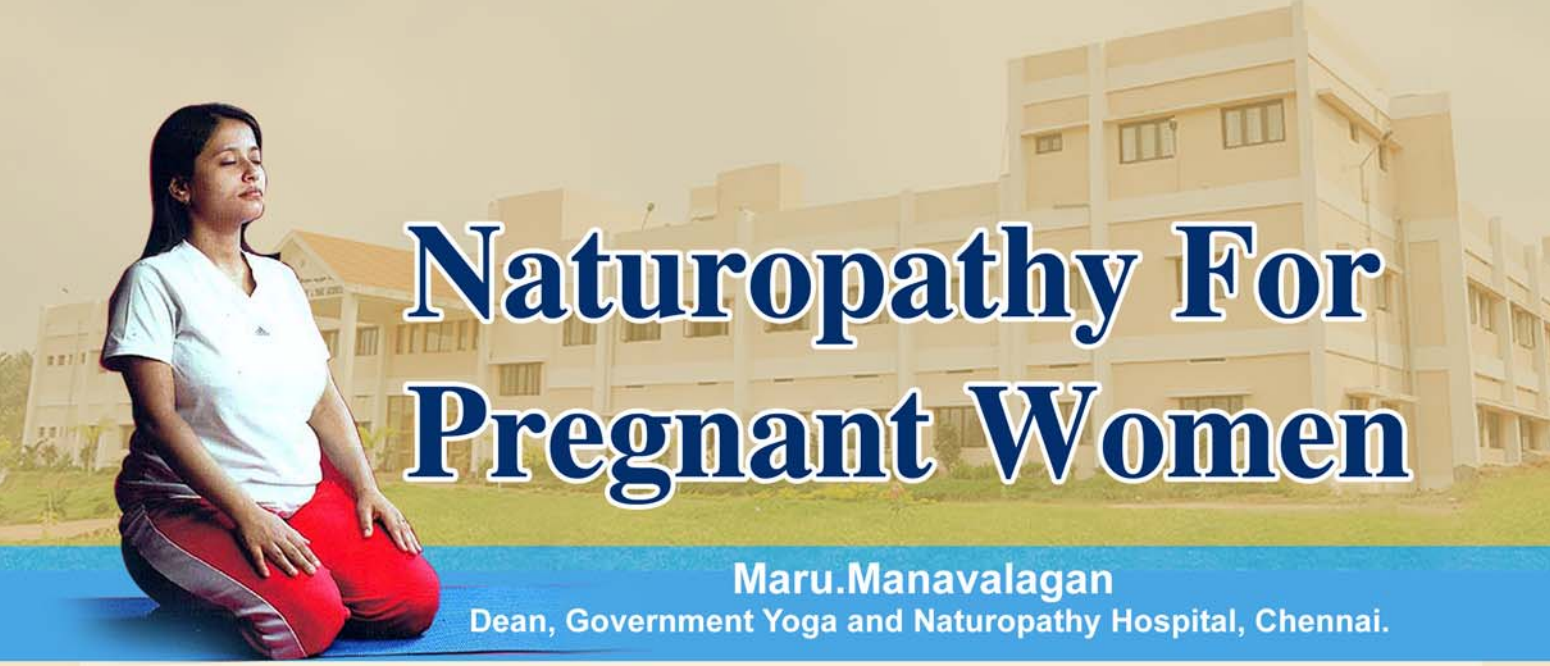


Naturopathy For Pregnant Women

Maru.Manavalagan
Dean, Government Yoga and Naturopathy Hospital, Chennai.

Pregnancy is a wonderful experience for women. Though women play several roles in life, they experience fulfillment only when they attain motherhood.

The mother fosters a new life in her womb during pregnancy. Preparing in the correct way during the pre-natal period paves the way for easy delivery.

Science has achieved phenomenal development, yet pregnant women continue to face problems. Worries, anxiety and the like affect the embryo also.

Several types of exercises benefit pregnant women. Yoga, especially, gives excellent results. But it is better to be guided by a yoga doctor during pregnancy.

Muscles may come under strain during pregnancy due to the release of some hormones for relaxing the womb. As these hormones affect the tissues of joints, they may not greatly help the muscles to stretch.

Yogic exercise is to be practised after paying special attention to abdomen muscles and ascertaining what needs to be done during the pregnancy.

The aim of this yogic practice is to ensure easy delivery and to reduce complications that affect the mother both in the pre-natal and post-natal periods.

Consultations before Conception:

Before planning for the child, the couple should approach the doctor without fail. They should learn about the diet to be taken during pregnancy, the physical exercises to be practised and the like.

Diet during Pregnancy:

It is important pregnant women eat well. They need more vitamins and minerals. They particularly need Folic Acid and Iron nutrients. They require more calories. Correct diet during pregnancy pertains more to what is taken and how it is taken than how much one eats.

The best nutrients are shared by the mother and the child in the womb. The child growing in the womb gets all its nutrition from its mother through the umblical chord. Hence it is very, very important that the mother takes the correct food. If the mother suffers from

vitamin or any nutritional deficiency, the child too will inherit the same deficiency.

The required Nutrition:

Pregnant women who do moderate physical work need 2,400 calories a day. Normal women need 2,000 calories. Lactating mothers need 3,000 calories/ day.

The best type of Balanced Diet, will include all types of food. It is necessary that pregnant women take this type of food to get proper strength.

Protein:

For the growth of the embryo and the child, protein is required in great measure. Hence, protein rich diet is to be taken during pregnancy. Fifteen grams of protein should be taken every day. For lactating mothers, the quantum should be 25 grams.

Protein is available in abundance in beans, peas, country beans (Avarai), sprouted grains, green gram, almond, pista, akhrot, groundnut and the like.

Fat:

Fat contributes to brain growth, promotes immunity and protects glands. It integrates the body and helps its healthy growth. During pregnancy, 30 grams of fat is needed. Linolenic acid, particularly, is very essential for the growth of embryo. All nutrition in the mother's milk depends on 'planned food'.

Omega Fat Acids:

Flax seed oil, soyabeans and akhrot are rich in Omega-3 fatty acid. Maize oil and sunflower oil are rich in Omega-6 fatty acid.

Folic Acid:

In the first 3 months, women require Folic acid in good quantity. It is required for the growth of the embryo's nerves. Red corpuscles and amino acids are required for getting the shape. In the planned food during pregnancy, 300 micro grams Folic Acid should be taken in the first three months. Lactating mothers should take daily 150 microgram Folic acid.

This nutrient is available in plenty in Palak greens (Pasalai), beans, dhals, wheat flour, country beans, peas, beetroot, sprouted grains, soya and sweet potato, cabbage, banana, orange and almond.

Iron Tonic:

Iron tonic is also required during pregnancy. In greens like Pasalai, drumstick and wheat gram, fruits like apple, pomegranate and grapes, dry fruits like dates and raisin, and in vegetables like beetroot and bottle gourd, iron nutrition is available in plenty.

If vitamin C is taken along with iron nutrients the latter gets absorbed well. Vitamin C is available in good measure in gooseberry, and in citrus fruits like lemon, orange and sweet lime (saathukudi).

Excess consumption of tea and coffee reduces the absorption of iron in the body. Pregnant women should take 38 milligrams of iron nutrients in their food daily.

Zinc:

Zinc is useful for bone growth and for the functioning of the reproductive organs. It is available in good measure in wheat, groundnut, maize, rice, oats and barley. Pregnant women

should consume 11 milligrams of zinc in their food daily. Lactating mothers need 12 milligrams daily.

Calcium:

Calcium is essential for the child to grow well. Drumstick, greens, curry leaves, betel leaves, Pasalai greens, cumbu, soya, guava, apple, country gooseberry, Pirandai and Araikeerai are rich in calcium.

Pregnant women and lactating mothers should take 1,000 milligram of calcium in their food daily.

Vitamin B12 is needed for the brain growth of the child. Its minimum requirement ranges from 0.5 microgram to 1.5 microgram. Soya milk is rich in this vitamin.

Sprouted Grains:

Grains can be made to sprout in a natural way. The sprouted grains can be taken along with vegetables in the diet.

The grains should be washed well and kept overnight soaked well in water. After filtering the water next day, the grain should be wrapped in a cotton cloth. They will sprout in 24 hours. These sprouted grains not only help digestion but give great strength. They contain vitamins and basic salts. These grains are full of highly nutritious protein, calcium, lecithin needed fat and vitamin E and B complex. The grains that are to be sprouted are green gram, cumbu, ragi, and wheat.

Consume Water and Fruit Juice In Plenty:

To avert constipation, edibles rich in fibre like`vendayam' (fenugreek), green vegetables, raisin, banana, papaya, guava and whole grains should be taken.

Consuming a minimum of 2 to 3 litres of water will also help avert constipation. Intestinal movements can be regulated through the practice of daily yogic exercises.

These are necessary for gradual weight increase.

Yoga Exercises for Pregnant Women:

Simple yoga exercises help to relax the body and reduce pregnancy-related problems. They prepare the mother physically and mentally for delivery and for the changes that occur after delivery. Asanas, breathing exercises, meditation and the like prepare the mother for the delivery. They reduce unnecessary fears and negative thoughts. After the delivery, they tighten the abdominal muscles and restore the pre-pregnancy shape.

- Yoga and breathing exercises reduce the incidence of vomiting and nausea.
- They help reduce body weakness and the swelling of breasts.
- Some yogic exercises pave the way for easy delivery by relaxing the hip bones and passage of delivery.
- Swelling in legs and joints is reduced.
- Intestinal organs are strengthened.
- Abdominal and hip muscles regain their old condition through yoga.

Asanas during Pregnancy:

They are divided into asanas for 1st quarter, 2nd quarter and 3rd quarter of pregnancy

and include -- Breathing exercises, Ardha-thithili Asana, Poorna-thithili Asana, Suddha Udhargarsaasana, Chakki Chalan Asana, Kashta Thakshan Asana, Marjari Asanam, Kati-chakrasana, Thaadaasana, Utthanaasana, Sethu- Bandhaasana, Ashwini Mudra, Dhyana practice, Matsya Krithaasana, Vajraasana, Badrasanna, Hastha utthaasanam, Ananthaasana, Naadisuddhi Pranaayaama, Bramari coolant Pranayama and the like.

Treatments for activating mammary glands -- water treatment:-

Adequate quantity of water should be consumed during the lactating period.

During the 5th & 6th months of pregnancy breasts should be washed with cold water. The chillness of the water should gradually be reduced as the pregnancy advances.

The breasts should be rubbed with a dry towel. This will activate the tissues in the skin and its base.

Beneficial Natural Food:

'Vendhayam' (fenugreek) can be taken daily a little higher quantity of garlic and ginger can be taken along with food. Sathavari potion (Kashayam) can be taken.

Massage:

Massaging the breasts in warm water and stirring the nipple will increase milk secretion.

Pranayama:

Naadi suddhi praanaayaama and other breathing excerises are all beneficial.

Pregnancy Diabetes:

Blood sugar will be somewhat high during pregnancy. This is natural. The condition is caused due to poor secretion of the pancreas. Through blood test, this can be detected. If the mother is diabetic during pregnancy, it will affect the child and cause diabetes, jaundice, low sugar and the like in the child.

Controlling Diabetes:

Through dietary control and proper physical exercise, diabetes during pregnancy can be controlled to an extent. The intake of highly fatty and protein-rich food should be reduced and consumption of fibrous vegetables and cereals should be increased. Diet control along with colour treatment, yogasanas, acupuncture and meditation help control pregnancy diabetes.

Blood Pressure in Pregnancy:

If the BP reading is more than 140/90, it is called High BP. The reading is taken in the 5th month of pregnancy. Protein in urine will be also low.

Management of High BP in Pregnancy:

Avoid foodstuffs that increase blood sugar, BP and cholesterol in blood. By this, heart diseases and diabetes can be prevented.

Avoid salty food stuffs, canned food, fast food, dairy products.

Include fruits, vegetables, food stuff with low salt, food with high level potassium and those with oil seeds.

Avoid the high life ; Exercise in adequate measure.

Through stress management, increase in BP, mental stress, pulse rate and anxiety can be averted.

Avoid smoking and liquor.

As per medical advice, adopt preventive measures.

Things to be avoided:

Salty foodstuffs like dry fish, pickle, salt-flavored bengalgram, chips, refined butter, curd, dairy products and fried articles are to be avoided.

Take water daily, commensurate to body weight.

Food with medicinal properties for High BP:

Potassium rich food:-

Cereals, oats, rice, green vegetables, watermelon, garlic, onion, raw cauliflower, cherries, pineapple, pomegranate and guava.

Food articles rich in Omega 3 and omega 6:-

Gingelly oil, Sunflower oil, Soya oil, ash-gourd seeds and cashew nut .

Anaemia:

Generally, anaemia is a killer disease during pregnancy.

Symptoms:- Breathlessness, palpitation, lethargy, languor, inattention and swelling in the legs.

Anaemia shatters the health of women with heart diseases.

The first and foremost test to be carried out in pregnancy is to detect anaemia. To prevent anaemia in pregnant women, one should include in the diet at least a small quantity of iron-rich food articles. Anaemia in the mother will affect the growth of the child also. As the hemoglobin level goes down oxygen transfusion to the child gets reduced. As a result, the child's bone and muscle growth will also get affected. As the child receives the same low level of iron tonic from its mother, it also inherits anaemia.

Include food articles such as greens, beetroot, dates, raison, dry fruits, samba rice and wheat flour to get iron nutrient into your system.

Avoid coffee, tea and acid reducing tablets as they prevent iron nutrient getting absorbed in your body.

Most people of the present generation suffer from stress. Pregnant women are no exception to this. Nowadays, more women go to jobs. Environmental pollution and food adulteration affect the normal life of women.

If food, mental condition and environment are all good during pregnancy, the mother's health and the health of the child will be good.

Yoga and Naturopathy provide a wholesome and healthy quality to the mother and the child at every stage. Yoga rejuvenates the heart and removes stress and fear. The yoga system calms down every cell and bestows health to all body organs.

Follow road safety rules, avert loss of lives

- Dr. R. Dhinakaran IPS
Joint Commissioner of Police, Traffic (South) Chennai

Increase in vehicle population is one of the reasons for road accidents. Those who walked or commuted by bicycle earlier have started using vehicles on account of their relative prosperity due to economic growth or the compulsion to complete tasks quickly.

The growth of vehicles in Tamil Nadu was nearly four-fold in 13 years between 2000 and 2013 – from 50,12,210 to 1,80,64,787. Death due to accidents is in the ratio of 5:1; for every 5 accidents there is one death. The regrettable part is that India leads the world in this mortality ratio followed by China, the United States, Russia and South Africa, in that order.

One fatal road accident takes place in India every four minutes and the death toll is 375 per day on an average. The most tragic part is that the victims are below 35 years of age on an average.

In the last 10 years, the number of persons dying in road accidents is more in Tamil Nadu than in other States. The main reason for this is non-compliance of the road traffic rules.

The tsunami of 2004 clamed 12,480 lives in Tamil Nadu. The number of road fatalities in that year was 15,100. Every driver should ponder whether our lives should end in road accidents.

The main reasons for road accidents are:-

(1) Driving vehicles in a haphazard way

(2) Violating speed limits

(3) Jumping traffic signals

(4) Drunken driving

(5) Over speeding

(6) Speaking on cell phone while driving

(7) Diversion of attention and inattention / negligence of drivers of heavy vehicles account for the large number of deaths of light vehicle drivers

Scant respect for the law and no fear of the law is the most important reason for the violation of traffic rules. There is also an indifference to traffic rules.

The inattention of the drivers of vehicles is the main reason for most of the road accidents. Lack of proper awareness about traffic rules is responsible for this.

Wearing a helmet has been made mandatory for two-wheeler users. Despite the display of warning boards at several places listing the number of deaths that take place due to non-wearing of helmets, two-wheeler riders usually hang their helmets at the back of their bikes or place it over the petrol tank while driving their vehicles.

In recent times, the two wheeler riders wear helmet only to hide their cell phone talk and thereby invite their tragic end.

During nights many resort to drunken driving and lose their lives. Though drunken driving attracts severe punishment, this offence is committed knowingly, resulting in the loss of many lives including that of innocent ones.

The number of accidents due to speed-biking is also high. This is also an offence that is committed knowingly. Perhaps one of the reasons for the high incidence of this type of accident is the light punishment inflicted on the offender.

A Serious concern about one's own family ---how it will be orphaned in the event of an accident --can avert accidents.

Elders in the family should caution youngsters about the dangers of a road accident and the consequences that follow and advise them to take care.

It will also be useful to create awareness about road accidents and about road safety rules either as part of the curriculum or at prayer time in schools daily.

Parents should strictly prohibit students below 18 from driving vehicles. Likewise school-college buses should follow Government rules in transporting students. School and college managements should keep a watch on whether their drivers are overloading their vehicles with students, driving the vehicles in a safe and secured way and there is no drunken- driving or driving while talking on the mobile phone.

It is necessary for the concerned establishment to conduct awareness campaigns on safe-driving. Schools should periodically conduct awareness programmes about road safety.

Accidents can be reduced only if road safety rules are followed properly. Traffic

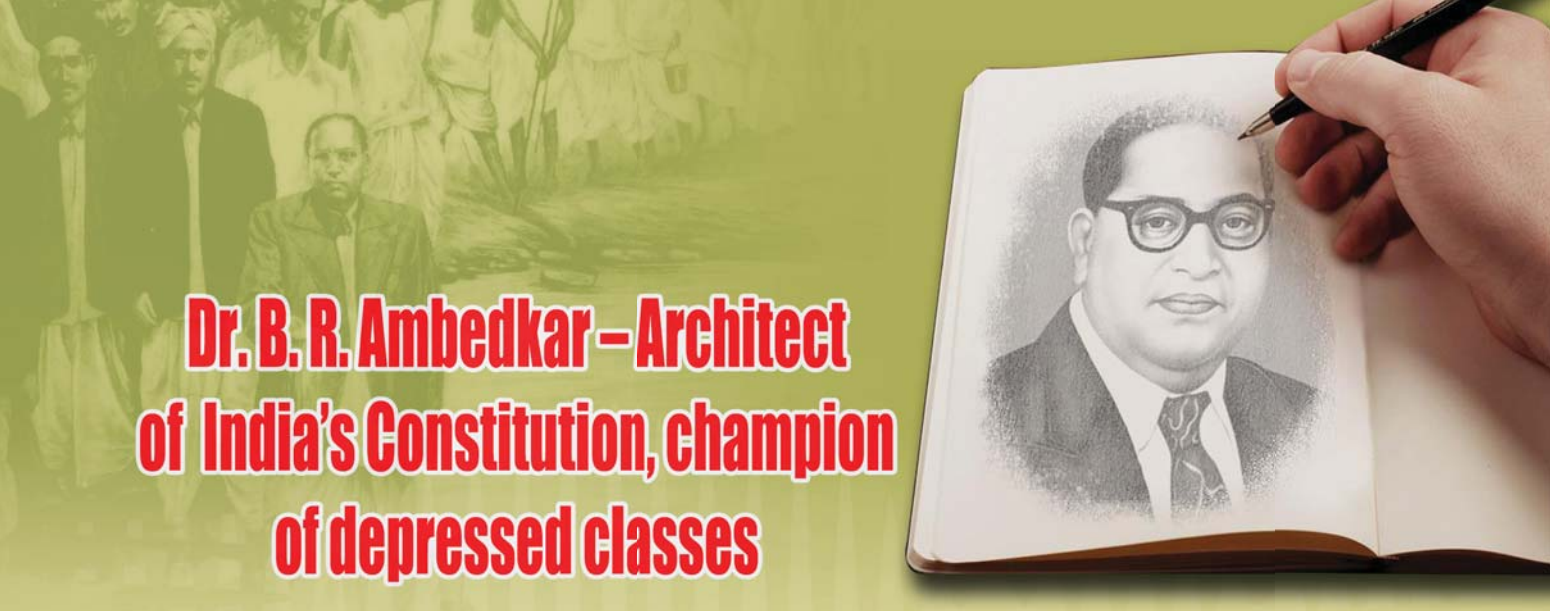
police constables should be periodically updated about traffic techniques of the times and on first aid. If drivers extend co-operation to traffic constables, accidents can be easily averted.

It is very very essential that victims of road accidents are given emergency treatment in time and those nearby render all help. Anyone can assist to save a life. It is a humanitarian act to despatch an injured person to a hospital quickly without any hesitation.

Several lives can certainly be saved by educating drivers on road safety rules by creating awareness and by providing emergency treatment. Without any fear of possible future police enquiry, people should help accident victims. They can get confirmation that no trouble will pursue them if they extend help to the victim.

How to avert accidents?

1. Two-wheeler riders should strictly wear helmet.
2. There should be a valid licence to drive a vehicle, whatever be it. The driver should keep the licence with him while driving.
3. Road rules should be respected and followed.
4. Pedestrians should cross roads only at zebra crossings. There should be no jaywalking.
5. No cell phone usage while driving.
6. Drunken driving is a serious offence.
7. Travel by more than two persons on two-wheelers is strictly prohibited.
8. Turning the vehicles left or right should be after switching on the indicator.
9. Vehicles should be parked in the allotted space without causing hindrance to traffic.
10. Those below 18 should not drive motor vehicles.
11. Fire-Tenders and Ambulance vehicles get priority in traffic.
12. The road should be crossed after watching both sides.
13. No rash turning into a main road from a cross road.
14. Cell phone not to be used while walking on the road or while crossing a railway track.
15. No foot board travelling in buses.
16. If vehicles develop repairs on highways, they should be parked after taking protective measures. Lest vehicles from behind crash into them..
17. Sharp materials like iron rods should not project outside while being transported. It is wrong to transport sharp-edged materials.
18. Travel on the roofs of vehicles is dangerous.
19. People should co-operate with police in removing oil spillage or jelly stones on roads.
20. Areas prohibited for transport should not be trespassed.
21. Roads are our common property; without yielding to our whims, let us use it following traffic rules and ensure our safety; let us also enhance our country' prestige in the world arena. ■



Dr. B. R. Ambedkar – Architect of India's Constitution, champion of depressed classes

Dr. Bhimrao Ramji Ambedkar (14 April 1891, Mhow – 6 December 1956, Delhi), popularly known as Babasaheb was India's first Law Minister and as Chairman of the Drafting Committee on India's Constitution, its chief architect. Born in a poor untouchable Mahar family, Dr. Ambedkar rose against great odds to the pinnacle not only as a polymathic personality who was jurist, politician, historian, economist and more, but also as the greatest champion of the depressed classes.

Ambedkar was a brilliant student. After leaving school, he studied F.A., at the Elphinstone College, Bombay (Mumbai). With the help of the Rajah of Baroda, Ambedkar went to Colombia University, America and completed his B.A., and M.A., degrees, in 1912 and 1913 respectively. For his M.A. degree he wrote a research paper "Commerce in India". He wrote many more research essays while staying at Colombia including 'Religions in India and their origin' and 'Nationalists in India a historical study'. For the latter research paper he was awarded Ph.D., by the Colombia University. He went to England to study law. Along with law, he studied Economics and Political Science. He acquired the degree of Barrister-at-law and also M.Sc. degree simultaneously.

In 1918, he took up a job as a professor in a college and in 1920 he took part in the first meet of the Depressed Classes held at Nagpur. In 1923, he started practice at Bombay High Court. In 1924, he started a paper "Bahishkrita Hitakarini". He took up the cause of the Depressed Classes before the Simon Commission which visited India in 1928. He attended the First Round Table Conference held at London and argued that the Depressed Classes should have voting rights and the right to elect their own leaders. In 1935, Ambedkar was appointed principal of the Government Law College, Mumbai, a position he held for two years. Dr. Ambedkar was appointed Labour Minister in the Executive Council (cabinet of the Viceroy) in July 1942 . In 1952, Dr. Ambedkar resigned from his post as Law Minister of India. He was a member of the Rajya Sabha till his death in 1956.

Dr. Ambedkar was arguably among the most brilliant Indian intellectuals of the 20th century. His life is a triumph of character over circumstances and testimony to the fact that no man is born unequal. Ambedkar was posthumously awarded the Bharat Ratna, India's highest civilian award, in 1990.

Electronic waste (E-waste) is one of the rapidly growing problems of the world. E-waste is defined as discarded computers, office electronic equipment, entertainment device electronics, mobile phones, television sets and refrigerators. E-waste comprises multiple components, some containing toxic substances that can have an adverse impact on human health and the environment if not handled properly. The Union Environment Ministry has come out with E-waste (M&H) Rules 2011 to address issues of health and environmental damage caused by improper recycling and disposal of rapidly mushrooming E-waste.

It is also widely reported that the implementation of the rule across India has yielded mixed results. An attempt is made to understand the challenges faced by E-waste sector stakeholder.

1. E-waste Sector at a Glance

- ✶ E-waste means waste equipments (powered by electrical current or electromagnetic fields) whole or in part or rejects from the manufacturing/repair process that are intended to be discarded.
- ✶ Generally understood to refer to any old, obsolete, end-of-life appliances using electricity which has been disposed of by their owners.
- ✶ Globally about 50 million tonnes of e-waste are generated each year.
- ✶ As per a study released by MAIT with a limited assessment on personal computers, laptops and mobile phones, India generated 3,30,000 MT of electronic waste in 2007, while an additional 50,000 MT was illegally imported MAIT estimates that by 2011, E-waste in India would touch 4,70,000 MT.
- ✶ Similarly it has been assessed by an NGO Greenpeace that E-waste generation in India would have crossed 8,00,000 MT by the year 2012 due to increase electronification, and high rate of obsolescence.
- ✶ Tamil Nadu is the second largest producer of E-waste (13,500 Tonnes) next only to Maharashtra (20,270 Tonnes) according to the study conducted by Manufacturers Association of Information Technology (MAIT).

- E-waste is not hazardous in itself. However, the hazardous constituents present in the E-waste render it hazardous when such wastes are broken, dismantled and processed improperly. It is only at this stage that they pose hazard to health and environment.
- The E-waste value chain covers E-waste Generation, Collection & Stockpiling, Dismantling & Brokering, Processing and Disposal.
- The major stakeholder within E-waste value chain include producers, retailers, bulk consumers, individual consumers, waste collectors, dismantlers, recyclers, regulators etc.
- BulkConsumers(GovernmentInstitutions, public and private institutions) generate over 70% of the E-waste within the country.
- Over 95% of E-waste is handled/ processed by informal sectors. The role of informal sector covers waste collection, dismantling, recycling to recover resources and material using rudimentary techniques which poses severe threat to persons involved in the process and to the surrounding environment.

Unsafe methods of Recycling

Categories of EEE covered in the rules

2. E-waste (Management & Handling) Rules 2011

The key objective of the rule is to put in place an effective mechanism to regulate the generation, collection, storage, transportation, import, export, environmentally sound recycling, treatment and disposal of e-waste. This includes refurbishment, collection system and producer's responsibility, thereby reducing the waste destined for final disposal

Key Provisions

1. The producer of electrical and electronic equipment is responsible for the entire life cycle of its own branded product and in particular the environmentally sound management of end-of-life of their products by facilitating collection and take back system by complying Extended Producer's Responsibility.
2. Defining key stakeholders with assigned responsibilities in the E-waste value chain.
3. Procedure for authorisation of producers, collection agencies, dismantlers, recyclers and enforcement agencies. Separate procedure for registration/ renewal of registration of recyclers.
4. Regulations for import of e-waste.
5. Liability of producers, collection agencies, transporters, dismantlers and recyclers.
6. Information & tracking.

7. Reduction or elimination of hazardous substances used in EEE.

8. Setting up of designated authority to ensure transparency, audit and inspect facilities, examine authorisation/ registration, etc.

The following section briefly outlines the stakeholder responsibilities prescribed by the Rules along with the gaps in relation to the current E-waste sector:

3. Conclusion

While the existing rule and guidelines provide a good starting point, the same require strengthening to reflect the ground realities within E-waste sector context. It is critical that the gaps are addressed through amendment/ clarification so that legislation brings transparency and ensure confidence among stakeholders. The above section highlights some of the challenges in implementing the Rule. A comprehensive assessment of Tamil Nadu E-waste sector can address the following for the successful implementation of the E-waste Legislation.

- Identification and challenges faced by stakeholders.
- The operating model required to achieve the policy objective.
- The Overall responsibility for the policy objective.
- The role of various stakeholders in the proposed operating model.
- Medium/long term target to be placed in implementing the legislation.
- The sponsorship & institutional capacity required to meet the operating model requirements.
- The review mechanism required to be implemented to monitor the progress.

It is recommended that a detailed assessment of the Tamil Nadu E-waste value chain on the participants to understand the current State challenges and articulate the answers to the above clarifications. It is also recommended that such an approach is pilot tested within a Tier-II city with E-waste potential to assess the effectiveness of the implementation before adopting the rule across the State.

Source:

TNPCB (news letter)

Tamils in South East Asia and the Far East

Professor S.ARASARATNAM

The historical geography of Tamil country, with its wide coastline in the east and in the west, its numerous havens and sheltered inlets, its natural and manufactured products vendible in world markets and its strategic location on the highway of east-west commerce resulted in the development from very early times of a maritime and commercial tradition as an intrinsic part of Tamil society. In the very earliest evidence reflecting the society and civilization of the Tamils – the literature of the Sangam period – the role of trade and of traders loomed large in many of the regions of the Tamil country. There is indication of a flourishing seaborne trade from a number of ports of the Coromandel (a western corruption of Chola - mandalam) Coast and the Malayalam coast, and of communities engaged in seafaring and commerce.

The evidence of trade with west Asia and the Mediterranean world is clear and unmistakable from the first century B.C. Though not equally positive, evidence of trade eastwards, to Malay Peninsula, Thailand, Burma and even to China begins to appear from about the first century A.D. Subsequently this evidence strengthens and by the end of the Sangam period and the period of the twin epics it is clear that Tamil Seafarers had opened up a regular commerce with the countries of Southeast Asia.

The sailings to Southeast Asia appear to have mainly departed from the ports of the Coromandel Coast. With the unification of Tamil country under the Pallavas, this eastern coast developed rapidly into major centres of agricultural and handicraft production. The produce of these areas and the spices of the Malayalam coast seem to have been shipped by these Tamil traders. In return they brought back other aromatic spices to be found in those regions, various goods originating from China and, most importantly, gold and precious stones. The ports of departure extended northwards into the Telugu country, where under the Satavahanas a number of important ports of foreign trade developed.

Major places of trade

These ships would generally set sail after October to take advantage of the northeast monsoon in the direction of the Nicobar Islands from where they headed for the relatively protected seas east of Sumatra. There seemed to have been a number of places on the western coast of the Malay peninsula and southern Thailand where these ships landed. These were major places of trade at various times and also served as transit points across the peninsula and the isthmus to the Gulf of Siam and onward to Kambuja, Champa and beyond. A popular area of call for long periods was

the Kedah region where sailors made landfall using the Kedah peak visible far out at sea as a landmark. Others sailed further north towards the narrow Isthmus of Kra where the port of Takua pa has revealed evidence of Indian settlement. Traders from the Coromandel Coast must also have sailed through the Straits of Malacca to east Sumatran and Javanese ports. To the north there seems every evidence that traders from the Telugu and Tamil coasts sailed to different parts of the Burmese coast from the early years of the Christian era.

The trade seems to have picked up in the period of the Pallava rule and then carried on, on an ever-increasing scale, under the Cholas and later the Vijayanagar Empire. This expansion of trade to Southeast Asia was an aspect of the economic growth and increasing productivity and prosperity resulting from the creation of large political units in the Tamil country. In the sphere of trade, this expansion is seen in the growth of large combinations of merchants operating in corporate organizations centred in large market towns of South India. These trading corporations begin to feature in Southeast Asian trade from the 9th century onwards. It is not surprising that the large organizations among them have left inscriptional evidence in Malaya, Burma, Sumatra and Java of their presence in trade settlements. The corporations that are thus definitely known to have traded with Southeast Asia are Manikramam, Nanadesi, Viravalanjiyar and Thisaiyayirattu-Ainnurruvar.

Merchant settlements

The seasonal nature of the sailing movements and the expanding character of the operations led to the creation of what started off as merchant settlements in these various Southeast Asian centres of trade. Archaeological evidence has unmistakably identified these settlements where Indian traders would have lived, awaiting the change of monsoon, or as agents left behind by the large and powerful corporations to conduct business in the area. We have some idea of the nature of such a settlement in the Southern Thai port of Takua Pa from excavated remains and a Tamil inscription of the middle of the 9th century. Here was a settlement of Tamil merchants in the reign of the Pallava king Nandivarman the Third (c. A.D.844-866). It would appear that the Marikramam had established this settlement, which possessed its own regiment, with its own temple and tank and lived as a self-contained colony. It can be assumed that this would have been the pattern of many other Indian trade settlements in Southeast Asia.

With the ascendancy of the Cholas in South India, Tamil maritime trade and interest in Southeast Asia picked up considerably. Sailing were now more frequent and regular, and a wider area appears to have been covered. For the first time maritime trade became an instrument of royal policy and Chola navies began to make their power felt in the waters across the Bay of Bengal. During this period, a maritime power with control over trade and trade routes had risen in the Malay/ Indonesian archipelago, the Sri Vijayan Empire. There was much contact and intercourse between Tamils and the areas controlled by this empire. These relations soon extended to the political and cultural sphere. Just as Tamil traders from the Coromandel Coast traded in Sri Vijayan ports, Indonesian traders from Sumatra and Java frequented Chola Ports, particularly the port of Nagapatnam. Settlements and facilities similar to those held by Indians in Southeast

Asia were provided for these Indonesians along the Coromandel Coast.

Southeast Asian trade and the trade through the Straits of Malacca eastwards to China had become so much a part of Chola interest that soon the Cholas began to deploy their navy in these waters. The Cholas desired to keep the trade to Southeast Asia and China free and open for their subjects. The expansion of the Sri Vijayan maritime empire across the Malacca Straits into the major trading ports of the Malay peninsula gave this empire a commanding position over the trade routes of the region. It seems that the empire used this position to its advantage which would have had adverse effects on the traders of the Chola empire who traded in these parts. This seems to have led to a situation of conflict which resulted in a major invasion of the Sri Vijayan Empire by the Chola Emperor Rajendra I in 1025 A.D. This expedition, which was very successful, is recorded in a contemporary inscription of the reign of Rajendra Chola. The inscription records that the Chola navy attacked a number of Sri Vijayan ports, inculding the capital city of Sri Vijaya (Palembang) and captured the king Sangrama- Vijayottungavarman. The places mentioned are situated on the Sumatra coast, the Malay coast and in south Thailand. Much booty was taken from these places by the victorious navy. This expedition would have resulted in a temporary subjection of the Sri Vijayan ruler to the Cholas, for how long we are not certain. It would certainly have resulted in opening the Malacca Straits to Chola traders who were then expanding their trade eastwards to the Indo-Chinese peninsula and even to the Chinese empire.

Chola relations with the Sri Vijayan kingdom and interest in these ports continued in the 11th and 12th centuries. In 1068 there was another expedition by the Chola Emperor, Virarajendra, this time to Kedah which he claimed to have conquered on behalf of a king who had sought his protection. It seems that the Cholas were taking an active interest in the politics of the region. There is a contemporary Tamil inscription of a Tamil mercantile corporation in Sumatra, showing that commercial activity and political relations were going hand-in-hand during this period. The contact was not a one-way contact but was bilateral. At this time Indonesian traders were frequenting the Chola ports of Coromandel. The Chola monarchs made grants to a Buddhist temple near Nagapatnam established to serve these Indonesian traders.

Chola envoy to China

Though Chinese products have been known and were available in South India from very early times and Indian exports reached China, it is not known when direct trade between ports of Tamil Nadu and China began. Some would assert, on the basis of references in Chinese annals, that this trade was as early as the first century A.D. Tamil centres of Buddhism were known to Chinese Buddhist scholars and the increase of trade to Southeast Asia seems to have led to greater direct contact. There is evidence of this direct trade from the Sung dynasty onwards. From this period, south India becomes well-known to Chinese annalists who provide descriptions of the country, its people, its trade, ports and trade routes. The port of Nagapatnam seems to have been the port of departure for this China trade as well as the port to which Chinese traders arrived. There are traces of a Chinese settlement in that port. The end of the 10th century saw the rise of the Sung dynasty in China under

which the country was unified. The period coincided with the expansion of the Chola Empire in South India and as seen above, the extension of its interests into Southeast Asia. The desire to cultivate the existing trade relations and to bulid up diplomatic contact seems to have persuaded the Chola Emperor Rajaraja I (referred to in the Chinese annals as King Locha- Locha) to send an envoy to the Sung Emperor in 1012 A.D. The envoy Samudra arrived in the Chinese capital in 1015 A.D. with presents and was received by the Emperor. The History of the Sung Dynasty records in detail the voyage of this envoy `Soil Samudra'. Samudra died on his return journey. Subsequently trade delegations or envoys were sent in 1033 A.D. by Rajendra I and another in 1077 A.D. Direct trade between India and China increased and later Chinese accounts talk of the port of Calicut, which in the 13th century had risen to a major port of overseas trade.

Role of Tamils in transmission of culture

In the wake of trade there developed cultural contact and a process of cultural transmission of elements Indian culture in many regions of Southeast Asia. This process of cultural transmission originated from a number of regions of India; Tamil Nadu , Bengal, Kalinga and Orissa. It is therefore difficult to separate the contribution of the Tamils to this process. Almost all our authorities on the study of Indian culture in Southeast Asia are agreed, however, that the Tamil country played a major role in the transmission of this culture - whether it be through Sanskrit learning, Buddhist missionary teaching, Hindu architecture and iconography, spread of the written word or other aspects of Indian culture.

One of the major areas of contribution was through the introduction of writing. The script of a number of Southeast Asian languages is based on original South Indian scripts which were first transmitted in these parts. Some of the first inscriptions in the Malay Peninsula - such as for example the Buddhist prayer inscribed by a traveller in Bukit Meriam in Kedah - was in a Pallava Grantha script, as were others in Thailand and the Indo- Chinese peninsula.

Similarly, evidence from the plastic arts shows a good deal of the influence emanating from Dravidian India. The earliest temple structures excavated in the Kedah region of the Malay peninsula show distinct Pallava influences. Some of these structures and those of Kambuja and Champa have clear affinity to the monolithic temples of Mamallapuram. Some of the sculpture is also seen to be of a clearly Pallava style and these have been found in many sites in the region. This evidence shows the Pallavas as one of the major influences in the transmission of Indian culture in Southeast Asia. The great flowering of culture under the Pallavas in South India appears to have left its mark in Southeast Asia through the merchants and colonists who migrated to various parts of Southeast Asia. The origin myth of one of the earliest Indianized kingdoms of the region, the kingdom of Funan, is very similar to the myth relating to the founding of the Pallava kingdom. South Indian influences have also been noted in the cultures of Javanese kingdoms, in respect of the script, the architecture, sculpture and the visual arts. In Sumatra there is in addition the adaptation of Tamil terminology such as Chola, Pallava, Pandya and Malayalam.

Testimony of Thailand

Evidence of the introduction of specifically Tamil ritual and the use of Tamil literature comes from Thailand where traces of this remain to the present day. Tamil brahmans who became royal priests (Rajaguru) to Thai kings appear to have introduced the use of Thevaram and Thiruvasakam in religious ritual. These Tamil hymns were then committed to writing in the Thai language and continued to be used in that form for centuries. They are especially used at the consecration ceremony of a ruler. Other Tamil religious texts used in popular festivals were the Thiruvempavai of the Saivites and Thiruppavai of the Vaishnavites. Scholars who have made comparative studies of the Ramayana stories current in India and various parts of Southeast Asia are of the opinion that the Tamil version, Kamba Ramayanam was known in Thailand, Malaya and Java. Its version of the various incidents in this epic have been incorporated into the local language accounts in these cultures.

In the spread of Buddhism into Southeast Asia and China also, the Tamils played a part. Tamil Nadu continued to have a number of strong centres of Buddhist learning long after the spread of Saivism and Vaishnavism. Throughout this period traders of Buddhist persuasion and Buddhist monks sailed from Coromandel ports to Southeast Asia. Scholars from the Buddhist centre of Kanchipuram and Nagapatnam went abroad to found schools of learning in Indo-China, Thailand and Sri Vijaya. The links with Chinese Buddhism had been established early.

The spread of Islam across the Indian Ocean tended to extend and strengthen Indian overseas contacts and relationships and Tamil Nadu played a prominent role in this extension. Arab settlements were founded on the Malayalam and Madura coasts of South India and local seafaring communities were Islamized. Ports of Southern India received a further boost in their trade as transmitting points for the east-west trade and Tamil, Hindu and Muslim merchant participated vigorously in this trade. The eastward segment of this trade was largely in their hands. In Southeast Asia in the 14th century, there is the rise of a powerful trading kingdom, the Sultanate of Malacca, dominating the trade of the region in much the same way that the Sri Vijayans had done in the preceding centuries. Malacca grew into a great entrepot of world trade and Tamil traders flocked there in large numbers sailing from Coromandel and Malabar ports.

The great corporations that dominated foreign trade in the earlier period seem to be declining and their place was taken by Hindu Chettiyar merchants of the Tamil and Telugu clans and by Tamil Muslims generally called Chulia Muslims. Some of these merchants were trading as individuals powerful enough to own fleets of ships leaving their agents in Southeast Asian ports to do the buying and selling for them. Others, and these were by far the larger number, consisted of small scale peddling traders getting together in one voyage, sailing with their goods, carrying on their own business, and returning with the change of monsoon. Tamil Muslim merchants also became the agents for the spread of Islam in the port-states with which they traded. The spread of Islam in these states in the 15th and 16th centuries gave them an edge over others in their trade with these parts.

Hindu and Muslim Tamil traders frequented the port city of Malacca and established

settlements there. Tamil Muslims secured considerable influence in the administration of the state. They married into the families of the Sultan and the upper ranks of the nobility. Some of them rose to high positions of Bendahara or controller of the exchequer and Shahbandar or port administrator. They carried on trade with South India, not only for themselves, but also on behalf of the Sultan. Both the Muslim and Hindu traders used Malacca as a base from which to trade with Sumatran and Javanese ports and further eastwards into the Spice Islands.

Both Hindu and Muslim Tamils tended to settle permanently in Malacca and thus are the pioneers of the contemporary Tamil migrations and settlement in Southeast Asia. Their part of the city, where they tended to concentrate, together with other Indians, was known as Kampong Kling. Here they built their own mosques and their own temples. Here were settled not only merchants but also artisans and craftsmen and adventurers who had left their homelands in search of a fortune. From Malacca, these Tamils tended to shift in the course of the 16th century towards other trading centres. Some moved to Acheh as it grew into a prominent port. Others went to the north Javanese ports and especially the port of Bantam as it grew into an important port. In all these places, there was an element that tended to settle down, win the confidence of the rulers and these were appointed to administrative positions in the port.

Truce with the Portuguese

With the Portuguese conquest of Malacca this Indian settlement was disturbed, particularly the Muslims to whom the Portuguese were initially hostile. Chetty traders, however, seem to have soon made their peace with the Portuguese and continued to operate as before and in fact increased their trade. From the Coromandel ports of Nagapatnam, San Thome, Porto Novo, Paleacatte, Masulipatnam and others, these traders sailed the Bay of Bengal with Portuguese passes and under Portuguese security. South Indian presence in Malacca increased during this period. Tamil Muslims also returned to Malacca after a time but they tended to settle in neighbouring ports outside Portuguese control such as Acheh, Johore and Perak. A Chetty merchant was made head of the Malaccan Indian community.

In time this Tamil community of Malacca became completely cut off from its homeland. Under the Dutch, its trading activity was seriously curtailed and it was restricted to some petty retail trade in the city, all kinds of handicrafts and some agriculture. Consequently the community declined from its once high position of wealth and prestige and gradually sank into impoverishment. A good deal of intermarriage took place with Malay women of the neighbourhood. It continued to practice the Hindu faith, as is seen from the grant of land by the Dutch to the Chettiyars in the 18th century for the construction of a Hindu temple. Gradually, however, their proficiency in their mother tongue declined and they increasingly used the Malay language.

The Tamil Muslims or Chulias continued to prosper. They moved away from Malacca to places outside European control and expanded their trading activities and their influence. They were welcomed by local Sultans who relied on them for the development of trade in their states. Thus the Tamil Muslims spread to the Sultanates of Johore, Perak, Kedah and Acheh in the 17th and 18th centuries. Some

of them were appointed 'court merchants' in these states and managed the affairs of Sultans and nobles. They married into these families. These Muslims retained their connection with their places of origin in Coromandel: Nagapatnam, Nagore, Cuddalore, Karaikal and Kayalpatnam. Their trade extended to all regions on the eastern side of the Bay of Bengal: Pegu, Arakkan, Tenasserim, Thailand and the Malay peninsula.

They were particularly well entrenched in the Sultanate of Kedah which rose in the 18th century as a trading state. Tamil Muslims were settled in large numbers in the Kuala Kedah area and held high offices in the administration. Some of them managed the trade of the Sultan and the nobles. From Kedah, they sailed up and down the Malay coast and to Burma and Coromandel, beating the Dutch blockade and helping to trade in goods of the region in which the Dutch had declared a monopoly. The Sultan used leading Tamil Muslim merchants as intermediaries in his dealing with European powers, especially the English. Some of them took part in the negotiations with the English which led to the cession of the island of Penang to the East India Company.

When the English founded the settlement of Penang in 1786, it grew into a thriving centre of commerce and agriculture and attracted settlers from the neighbouring coasts. Among those who chose to settle there were Tamil Muslims who then, along with the Chettiyar of Malacca became the earliest of the modern Indian Migrants and settlers in the Malay peninsula. In time they spread across the island to Province Wellesley and engaged in a multitude of activities such as coastal trade, peddling farming and labouring in the docks. With the founding of the Colony of Singapore in 1819 and its rapid growth, some of these Tamil Muslims moved over to Singapore. The development of trade and enterprise in the Straits Settlements in the first half of the 19th century brought further migrants from Tamil Nadu, both Hindus and Muslims.

The growth of plantation enterprise in the Malay peninsula created a demand for labour which was filled by the import of labour from South India. Migrant labour was brought in under indenture contracts to work for fixed periods of time from the various districts of the province of Madras. With the boom of the plantation industry from the 1880s, this trickle of labour migration grew into a flood. Most of the recruitment was done through a kangany, sent by his European employer into the Indian village to induce others to migrate to Malaya to work in his employer's plantation. The Colonial Government also recruited labour to work in its services both in the Settlement colonies and in the Malay states. As a result by 1901, there were 1,20,000 Indians in Malaya, over 80% of whom were Tamils. Tamil migration increased further in the 20th century. While the plantations and the growing state services took in the bulk of this migration, from the 1920s, commerical, professional and other educated groups also began to come in. By 1957, there were 9,44,000 Indians in peninsular Malaya and Singapore, of whom about 80% were Tamils and in 1970 there were 1,081,400 Indians with a similar proportion of Tamils.

Repatriates from Burma

Another Southeast Asian country which saw Tamil migration in substantial numbers was Burma. Here the migration began as the migration of labour on indenture contracts to

work in the paddy fields and in the milling of rice. Subsequently there was migration of commercial groups, especially Chettiyar and educated elements. At the end of the migration process, Tamils, Hindus and Muslims, constituted 10% of the total Indian population of just over a million. Unlike in Malay and Singapore, where a number of Tamils decided to settle and plant roots, many repatriated from Burma to their homeland during and after the war. These repatriates returned destitute to their country and had to be resettled by the Tamil Nadu Government in special resettlement colonies.

In contrast, Tamils in Malaysia and Singapore participated enthusiastically in the political and economic growth of these countries after they achieved independence. They took citizenship there, participated in political life and rose to positions of leadership. The Tamil element in these countries was added to by the Tamils of Ceylon (Sri Lanka) who migrated from Jaffna in north Ceylon as professionals and clerical workers. Tamils planted their social and cultural institutions in their countries of migration. A Tamil school system was established in Malaysia, Singapore and Burma. Saivite temples and religious societies were founded and played a prominent role in the religious life of the community. Tamil dance, music and drama were fostered. A lively Tamil press as well as creative writing in Tamil was firmly implanted. Popular Tamil religious and cultural festivals were enthusiastically celebrated. In all these aspects of cultural life, these migrant Tamils retained their association with their mother country and enriched their cultural experience by this containing association.

Thus a continuous tradition of maritime and seafaring activity has resulted in the spread of the Tamil people over a number of scattered regions. Wherever they have gone they have carried with them their love of language and their social and cultural institutions. These institutions have been somewhat transformed in the act of being transplanted in a new environment. But the continuing attachment to these traditions has kept alive the emotional loyalty to Tamil Nadu from which they originated and made them feel part of an international community linked by the bonds of Tamil culture.

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A sweet fruit with medicinal properties Pomegranate is a fruit available round the year, an added advantage. Rich in iron tonic and Vitamin 'C', it cures blood anaemia through the total absorption of the iron content in it.

Bharathidasan - the sweetness of Tamil was like nectar to him

Bharathidasan (April 29, 1891 - April 21, 1964) whose given name was Subburathinam, is hailed by admirers as 'Pavendhar', 'The Emperor of Poesy'. He was a Tamil scholar in the traditional mould, but his ideas of style and poetry underwent a radical change after his association with Subramania Bharati in Pondicherry. As a tribute to Bharati, he called himself Bharathidasan. Characterised by simplicity and beauty, Bharathidasan's poetry champions the cause of Tamil and Tamils and attacks mythology and religion as superstition. One may say that Tamil itself is Bharathidasan's religion and he has celebrated the beauty and richness of Tamil in many memorable poems.

Bharathidasan was born to Kanagasabai Mudaliar and Lakshmi Ammal in a well-to-do merchant family of Pondicherry. He underwent formal education in Tamil literature, Tamil grammar and Saiva Siddhanta under reputed scholars. He also studied at the Collège Calvé in Pondicherry. He initially worked as a Tamil teacher in the French territory of Karaikal.

He actively participated in the Indian Independence Movement and through his writings, openly opposed the British and the French Government. He was sentenced and imprisoned by the French Government for voicing views against the French Government that ruled Pondicherry then. He was a strong supporter of the 'Self-Respect movement' and proclaimed himself as an atheist though he had written some devotional poetry at the beginning of his poetic career. In 1955, he was elected to the Puducherry Legislative Assembly.

Among Bharathidasan's popular poetic works are Azhagin Sirippu, Kudumba Vilakku and Edhirpaaraadha Mutham. He remained a prolific writer until he died in 1964 in a hospital in Chennai after his efforts to produce a film had ravaged his health. Edhirpaaraadha Mutham was made into a film titled Ponmudi in 1950. Some film songs that used his lyrics have also become evergreen hits. ■

Dental Hygiene

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Oral Hygiene Instructions

The mouth is the mirror which reflects systemic diseases. Taking measures to keep our mouth clean is essential for excellent dental health. A daily oral hygiene regimen is needed to remove the dental plaque that causes tooth decay and gum diseases. Good oral hygiene not only helps prevent cavities but is also necessary to battle bad breath. Making an effort to focus on our dental health not only produces a beautiful smile, but has some added benefits. Since Oral health is linked to overall health, good oral hygiene can impart overall well-being. When oral health is neglected, bacteria multiply and leads to bad oral hygiene.

If gums become infected with periodontal disease, harmful bacteria even actually enter the blood stream and make its way to other parts of the body.

Practicing good oral hygiene can reduce the chances of developing complications or illness from dental diseases and could prevent the need for gum disease treatment.

Brushing

Brushing is a common oral hygiene practice. A good teeth cleaning after eating helps to remove dental plaque bacteria and reduce chances of getting dental cavities.

Learning how to brush properly is vital. For proper brushing techniques, one should hold the tooth brush at a 45 degree angle to the gums. Brush up and down to reach the surface of each tooth.

While brushing, tongue should be cleaned. Brushing the tongue will further remove the bacteria that cause bad breath.

The American Dental Association recommends brushing with fluoride tooth paste to greatly reduce incidence of dental plaque bacteria.

Brush longer not harder. One should brush for at least 2 minutes to remove as much dental plaque as possible and twice a day is very important. Brushing at night time is more important than brushing in the morning.

Harder brushing irritates tissues in the mouth and causes gum damage. One should use a soft-bristled tooth brush to protect the gums and should replace the tooth brush every 3 months.

Flossing:

Flossing removes dental plaque that is hiding in between teeth. Flossing at least once a day is recommended to remove the ongoing accumulation of dental plaque that forms between teeth.

Mouth Wash:

Anti-bacterial mouth washes can remove the bacteria that cause dental plaque. This helps prevents gingivitis, the first stage of gum diseases. Fluoride rinses help slighter teeth and prevent tooth decay.

Diet:

Healthy eating habits are an equally important part of oral hygiene regime. Sugars and carbohydrates promote tooth decay which ruins the teeth. Oral hygiene can be protected by eating nutritional and fibrous foods.

Professional Technique:

How we practice Oral hygiene is on our hands. Regular dental visits every six months are essential to one's dental health.

A professional dental cleaning will remove dental plaque and calcium that can't be removed by oneself.

Conclusion:

What happens when we don't practice proper oral hygiene? Apart from bad breath, tooth loss also occurs.

Remember the "The rules of two's": Brush at least twice a day and see a dentist twice a year.

The Do's and Don'ts for Healthy Teeth

Do's

1. Do start brushing your child's teeth as soon as a tooth is seen in the mouth.

2. Do brush twice a day and especially before retiring to bed.

3. Do eat healthy foods like fruits and vegetables. The daily calcium recommended is advised not just for middle aged women, but also for all ages. The teeth acts as a store for minerals like calcium in the body.

4. Before sleep it is compulsory that everyone should brush properly.

Don'ts

1. Don't give your baby bottled fruit juice. Juices are acidic and contain sugar.

2. Don't use candy as a pacifier. It can lead to obesity.

3. Avoid soda and stuff like potato chips: they contain lot of sugar, they are acidic and not nutritional.

4. Don't allow the child to brush its teeth without supervision.

5. Avoid Smoking, Alcohol, Tobacco, Betel nut.

Whither Science

- P.N. Appuswami

The development of science in the last century and a half has transformed our habits and our lives almost beyond recognition. The world we live in today is a science dominated world, and the present is an age of science. We have been overwhelmed, excited, amazed, and bewildered, by a spate of marvellous scientific discoveries and technological inventions, and by the startling changes which have followed in their wake. Steam engines, motor cars, telegraph, telephone, radio, television, radar, aeroplanes of various kinds, jet propulsion, penicillin, and other antibiotics, x-rays, laser, transistor, computer, atom power, radio-isotopes desalination, plastics, bakelite, celluloid, cell phone, fiber glass, stainless steel, nylon, miniaturisation of instruments, remote control, telescopes and microscopes of various kinds (including the radar telescope and the electron microscope) space travel- all these, and several other objects and achievements, are the results of the new scientific developments. These are wholly beneficial.

Nevertheless, science has another side, a reverse aspect, which is rather different, and somewhat frightening. Science has helped to produce the atombomb and the hydrogen bomb, the inter-continental ballistic missile, and the means for chemical and biological warfare. Thus while one aspect of science is pleasing and friendly, the other is alarming and deadly. We are caught between these two world of science totally different from each other.

But if we reflect, we realize that science is only the doorway to these two worlds, that we are really the doorkeepers, and that we can choose the door we wish to use. This fact is often forgotten, however. So humanists, philosophers, sociologists, political leaders, governmental officials, professional journalists, men of religion, scientists, and even non-thinking men and women, have asked again and again, 'Whither is science tending? Is this growth of science justifiable? Should we not rather put a stop to its further development before it becomes too late?', as if science was going anywhere of itself.

What is science?

Science is a form of human intellectual activity, which has been initiated and pursued and has been growing and changing with the progress of the human race itself. It is difficult to define it briefly, particularly now when it has become so elaborate and so comprehensive. It has been called organised knowledge; but

the definition includes too much. It has been defined as the `search for the perfect means of attaining any end'. This is also too broad. Einstein has stated thus: `The whole of science is after all nothing but a refinement of everyday thinking'. This is an over simplification. We shall have to be satisfied with 'Science is a method for the description, creation, and understanding of human experience'.

Thus defined, science can do no harm at all. But the description referred to therein may be motivated not merely by a desire for knowledge and understanding. This leads to a realization that careful observation and recording of certain aspects of experience may provide a measure of control over nature, and also over fellow human beings. The former control is social, and will help mankind progress, while the latter control may be social, or anti-social, according to the way the power is used. If we use the power to allay suffering, destroy hunger and disease, and to help mankind to live in greater comfort it will be a social use, and therefore beneficial. If, on the other hand, the power is used to threaten, enslave, or destroy, it will be anti-social. In either case, it is the attitude of the scientist, or of the society of which he is a member, which governs the result, or directs which way science should go.

Science is not self-propellent. It is inherently neither good, nor bad. It is neither moral nor immoral. It is a moral at the worst. It investigates hard material truth, and is not directly concerned with beauty or goodness. Yet, in its orderliness, it has a strange beauty all its own, and it can be put to good uses, if we will to do so.

Science seeks to discover and describe (reveal) the truth, irrespective of consequences. It has often been equated with truth. As we know, `truth' too is not in its results wholly good; it can do either good or harm. The injunction in the Manu Smriti is, `Speak the truth; speak what is pleasant; and do not speak the unpleasant truth'. The definition of truth as given by the sage Valluvar is, `What is truth? Truth is the spoken word which does not harm anyone in the least'. These are equally valid for science.

Gandhi and Science

In the present context, it might be relevant to consider the relationship of Gandhiji to science - much has been written about it, and much more needs to be, and will be. It may be stated generally that his outlook, methods and temper, were all scientific, in the sense that he held firmly to the view firstly, that facts come first; and secondly, that truth is what the facts point to, regardless of the observer's own wishes or desires. He held that, as a consequence of these factors, the observer's attitude and outlook became modified, and that he developed the scientific attitude. This

meant that the investigation of truth has side effects, and that truth acts on the observer, and slowly changes him, so that he counts for less and less in the later experiments. Science is impersonal, objective, and passionless. The scientist concerns himself only with material things, and with the study of matter, energy, and biological life. But Gandhiji extended this passionless approch - what may be termed the attitude of the Sthita - Prajna, the man of stable mind - and attitude to the study of human beings, and to the study of the society constituted by them, and also to the proper evaluation of social relations. The impact of his experiments is best seen in political science and applied psychology. He often made himself his own guinea-pig. He followed this method partly so that he may not subject others to any danger, and partly in order that he may have the best possible proof of his own experiments. His was an overall scientific temperament.

Pyarelal says of him, 'Ethics, morality, religion, - even spiritual experience - he regarded as a fit field for enquiry, experimentation and research'. He quotes Gandhiji himself, 'In order to make progress, we have often to go beyond the limits of common experience. Great discoveries have been made possible only as a result of challenging the common experience, or commonly held beliefs. The invention of the simple matchstick was a challenge to the common experience, and the discovery of electricity confounded all preconceived notions. What is true of physical things is equally true of things spiritual' (Mahatma Gandhi - The Last Phase, P 584).

It was Gandhiji's view that Love and Power are the two inseparable poles in the axis of human relations. Non-aggressive, non- possessive, freedom-conferring love is pure knowledge, and is free from the greed for power and therefore divine. Personal, possessive love leads to desire and power, and is part of our animal heritage. It should be possible for Man, who is a free spirit (personal and social) and immortal, to realize his stature, and to transform the grosser into the nobler.

Whither Science?

Since science is a human intellectual endeavour which has been well on its way for a fairly long time now, and has many discoveries and achievements to its credit, none of us can any longer stop its onward march. But we can, and we should, discipline ourselves, improve our moral fibre, develop our love for our fellowmen, and try and use the power that science has been putting into our hands to make this world a better place for all to live in. We can control the unlimited growth of population; improve agriculture and agricultural products, and provide more food; control and cure diseases; create more leisure, and lessen tensions; provide better homes and comforts for all - in short, make life fuller and safer and happier. Science will go the way we lead it. Let us lead it the right way, and make this earth of ours a world of joy and goodness. ■

Dheeran Chinnamalai – an Indian warrior who fought the British to the end

'Dheeran' Chinnamalai (April 17, 1756 - 31 July 1805) was a brave Kongu chieftan who rose in revolt against the British East India company and fought valiantly for freedom. He was born at Melapalayam, near Erode in Tamil Nadu.

Dheeran Chinnamalai belonged to the illustrious Palayamkottai Pattakarar family. This family controlled large tracts of land from their palace at Palayamkottai. Kottravel Sakkarai Mandradiar of this clan adopted Senapathy, who ruled from Palayamkottai and Rathnasamy, who shifted to nearby Melapalayam. Chinnamalai, who was first called Theerthagiri was the second son of Rathnasamy. Along with two of his brothers, Chinnamalai learnt martial arts like archery and silambam. Training the youth in such arts, Chinnamalai protected the lands under his control from robbers.

Chinnamalai's first brush with battle began when he intercepted Hyder Ali's Diwan and officials at a place between Sivanmalai and Chennimalai and retrieved the taxes they had gathered from Kongu farmers. The Diwan sent a contingent of soldiers to fix Chinnamalai, who, on his part, met them on the way to Kangeyam and defeated them. Gathering an army of youth, Chinnamalai trained them in expectation of an attack by Hyder Ali.

But after Hyder Ali's death and the attack against Tipu Sultan by the British, Tipu Sultan allied with Chinnamalai in the fight against the British. Chinnamalai became chief of the Kongu regiment which was trained by the French, who were the enemies of the British. Chinnamalai fought for Tipu in the Mysore wars against the British winning many a battle.

After Tipu's death, Chinnamalai settled down at Odanilai in Kongu Nadu and constructed a fort there and defeated the British in battles at the Cauvery in 1801, at Odanilai in 1802 and at Arachalur in 1804. Later, Chinnamalai left his fort to avoid cannon attack and engaged in guerrilla warfare while he was stationed at Karumalai in the Palani region. He was captured by the British who hanged him at Sankagiri Fort on 31 July 1805 on the auspicious day of Aadi Perukku.

Dheeran Chinnamalai is a folk hero in the hearts of the Kongu people and ballads celebrate his valorous life. Like Veerapandiya Kattabomman and the Marudu brothers, he is one of the earliest to revolt against the British… one of India's first freedom fighters.

PROTECTION OF EYES

We all know that the eyes are the most important sensory organs in the body and any defect in them is bound to affect not only intellectual and physical growth but also the very future of a person's life. Some school students suffer from short sight, some others from long sight and some more from the deleterious effects of squint eye like head ache, especially while reading books. This pamphlet is published to help teachers detect these defects, if any, in students and offer medical guidance to them for rectifying those defects.

What is proper eyesight?

Capacity to see the size, structure and colour of objects nearby and at a distance is defined as proper eye-sight.

How to detect blindness/ deficiency in eye sight in students?

Students are to be observed in classrooms. Taking the objects nearer to the eye, stretching the neck to see the blackboard and rubbing the eyes often are symptoms of deficiency in eyesight.

How to find out the strength of the eyesight?

Students eyes are to be tested. Arrangements for this have to be made in schools.

How to conduct the eye test?

Students are to be shown a cardboard cut in the shape of the English letter 'E' and asked to identify a similarly designed structure placed at a distance of 20 feet with one eye closed alternately.

Who is to test those with poor eye sight?

The Ophthalmology Assistant in the Government Primary Health Centre and if need be, the Doctor at the District Hospital, can conduct the tests.

After the test?

If there is a need, students can be made to wear spectacles to rectify vision.

What dietary advice can be given to students?

Greens, green vegetables and fruits can be included in their diet.

What else can be conveyed to them regarding eye protection?

They can be advised to disseminate information and details about eye care to people.

What is the benefit of taking up this task?

They can derive the satisfaction of helping students improve their eyesight and achieve excellence in studies.

What is to be done if students with poor eyesight fail to wear spectacles?

One must insist on such students wearing glasses. Thereby they can be made to feel the difference in their eyesight.

In what way students can be helped?

Proper advice about eye care should be given to them.

How not to strain the eyes?

Reading and writing should be done in adequate light. If need be, spectacles should be used.

How to avert injury to eyes?

Great care should be taken while playing. Avoid dangerous sports.

If the eyes are injured what is the advice to be given?

Don't rub the eyes. Eyes are to be washed in pure water. If the eyes have turned red or pain continues, advise them to approach a doctor or an ophthalmology assistant.

If eyes are infected what is the advice to be given?

Eyes are to be washed in pure water and wiped with a clean towel. If the eyes are swollen or continue to remain reddish, consult a doctor.

Night Blindness

Blindness in the night and in poor light is described as night blindness. It is caused by deficiency of Vitamin 'A'. If not attended to properly, it may lead to permanent blindness.

Those with symptoms of this disease should be taken to the auxiliary ("Thunai") Health Centre for tests. Those afflicted with this disease should be administered 2 ml of vitamin `A' liquid (2,00,000 international units). As a preventive measure their siblings should also be administrated Vitamin `A' twice a year. They should be educated about balanced diet and about the rich source of Vitamin ` A' in greens and in yellow-coloured fruits and make them include these items in their food.

- From the publication of the Tamil Nadu State Society for the Prevention of Blindness

Sir Theagaraya Chetty – he stood tall as a political leader

Sir Pitti Theagaraya Chetty KCSI (April 27, 1852 - April 28, 1925), one of the founders of the Justice Party in 1917, was an eminent lawyer, industrialist and political leader.

Theagaraya Chetty was born in a Telugu Chetty family of Madras Presidency. After graduating from Presidency College, Madras he served as a corporator and legislator. He had a great interest in politics and served as a member of the Indian National Congress before founding the South Indian Liberal Federation (the official name of the Justice Party) in 1917 with T. M. Nair. He was elected the first President of the Justice Party and served as President until his death in 1925.

When the first legislative council election to Madras Presidency after the establishment of dyarchical system of government by the Government of India Act, 1919, was held in November 1920, the Justice Party won the election with no significant opposition (Indian National Congress boycotted the election due to its participation in the Non-cooperation movement).

The Governor of Madras invited Sir Theagaraya Chetty to form the Government. However, Theagaraya Chetty declined it on account of his old age and failing health in favour of A. Subbarayalu Reddi, who was appointed Chief Minister. Prof. M. Ruthnaswamy, the first Indian principal of Pachaiyappas College, Madras reminisces about those days thus: ''Sir Theagaraya Chetty sat in the Legislative Council in the first seat below the gangway on the Government side and took a paternal and rather humorous interest in the proceedings. No one who knew him as he sat clad in white from turban to toe can forget that figure. He was always in white refusing to don a black coat even for Government House functions and Government House acquiesced in his persistence. That white seemed to be the symbol of the purity and honesty of his public life''.

Sir Theagaraya Chetty played a big role in the victories of the Justice Party in the 1920 and 1923 elections. He stood tall as a leader, and hosted royalty (George, the Prince of Vales in 1905 and Edward, Prince of Wales in 1922), lords and other high dignitaries at his lavish residence. T Nagar in Chennai, which was started between 1923 and 1925 by the Madras Presidency government of the Raja of Panagal as a part of town planning activities is named after Sir Theagaraya Chetty. It is an important commercial centre today. ■

The Socio-Religious Context of the Therukoothu

- Richard Armand Frasca
(Department of South and Southeast Asian Studies)

Even though, occasionally, for the purpose of foreign research scholars and/or urban folk-art connoisseurs, Therukoothu presentations are arranged solely for the purpose of recreation, they primarily occur as an integral part of ritual celebrations or performances. Since such rituals in Tamil Nadu are innumerable in type, only the most important ones will be mentioned here. Theoretically, any Amman or Mother Goddess festival should include a Therukoothu performance. This is usually a one-day festival; so the Therukoothu presentation will take place on the same night. Similarly, according to the Agamas or Temple ritual guidebooks, this drama form can be and is frequently associated with temple festivals of all kinds.

It is also included in ritual celebrations of a more personal kind particularly those enacted at the family level. These include a child's "Katu kuthu" or "ear-piercing" ceremony and the "Kula Thevathai Pujai," the puja to a family deity. Two other rituals of this type which may also involve koothu performances are the "Hari Servai" which is done on a family's return from a visit to the important Vaishnava temple at Tirupati and what is

called "Titi" or "Karumati Pujai". This latter puja is performed on the eighth or tenth day after the death of one by one's family. It is of great importance throughtout Tamil Nadu and is one of the most essential functions in which a Therukoothu performance is included.

The final ritual which deserves mention here is the massive, all important eighteen-day Draupadiamman Festival. This is enacted periodically at the numerous Dharmaraja and Draupadiamman temples which dot rural Tamil Nadu. The presentation of numerous Therukoothu performances is an obligatory aspect of this festival and appears to constitute the most important ritual and religious context for this drama form.

Since the final two rituals mentioned above appear to be the most essential vis-a-vis the Therukoothu, they warrant separate discussion in this study. During the Karumati Pujai, the requisite rituals are completed during the day while a presentation of Karna Moksam. The defeat of karna is put on at night. The belief is that the performance of this koothu will facilitate the deceased one's athma, or soul, attaining moksa, the Hindu concept of ultimate release and emancipation from the cycle of rebirths, as did that of the great hero, Karna, after his death in the epic Mahabharata. This episode of Karna's attainment of moksa occurs at the end of a performance of the Therukoothu, Karna Moksam, which is drawn almost entirely from the Tamil version of the Mahabharata. When this koothu is enacted during a Karumati Pujai, at exactly this point in the performance something very important occurs. Karna, lying mortally wounded on the battlefield in an imaginary context conjured up very nicely in the art of the Therukoothu, while talking to the Lord Krishna will actually mention the deceased person's name and will ask for his moksa and for the worldly welfare of his family members. After this, a Kamakshi Deepam, a special type of ritual lamp, will be lit and with it an aradhana, or act of adoration, will be made to Karna. When this scene is over this deepam is taken still lit directly to the deceased's house and kept burning for the whole of the following day. All of this, it is thought, will greatly aid the eamancipation of his soul from worldly rebirth.

Apart from its important relationship with the above ceremony, Karna Moksam is very significant in that it is the most frequently requested for single-night performances and is regarded by the Purisai Therukoothu group as being the most important one in their large and developed repertoirs. There is not enough

space here to delve into the social and cultural bases for this. However, one interesting sidelight should be looked at before leaving the subject of Karna. This is the fact that is appears that despite the attention which Rama, the hero of the epic Ramayana, gets among urban connoisseurs and practitioners of the classical performing arts and among sophisticated Tamil scholars who revere the Tamil Ramayanam of Kamban as the premier work of Tamil classical literature, Karna is the epic hero who captures the hearts and minds of the rural folk, be they performers or non-performers.

The Draupadiamman Festival is, in reality, the most important socio-religious context of the Therukoothu and since the Purisai Therukoothu manram's style seems to have developed actually in response to the needs of this festival the analysis presented here will be based chiefly on observations made of their involvement with this enormous folk ritual.

The festival is in actuality a ritual re-enactment of the Mahabharata and is also referred to in Tamil as the Barata Vila or Bharata festival. It begins on an auspicious day during Chittirai, the first month of the Tamil calendar, and lasts for twentyone days. The re-enactment of the epic is carried out in four ways; temple ceremonies according to the relevant sastras, large-scale ritual re-enactments of certain important incidents from the epic, literary discourses referred to as Prasangam, and dramatic presentations in the form of the traditional Therukoothu depicting a major portion of the work from the marriage of Draupadi to the defeat of Duryodhana.

Before coming to any essential conclusions, it is best for clarity's sake to give a summary narration of each of these four approaches to the Mahabharata. The first, involving the temple ceremonies, will only be touched upon lightly because the science of Hindu temple ritual is not an important focus of this paper. It should suffice it to say that many of the rituals normally taking place at a Hindu temple festival will be conducted along with other more specific rituals that deal primarily with the propitiation of Draupadi as a chaste Goddess and the affirmation of the sovereignty of Dharmaraja. Among the most important rituals of this type are the marriage of Draupadi to Arjuna, the tying of her hair in a knot representing the fulfilment of her vow and the Pattabhiseka or crowing ceremony of Dharmaraja.

The second area of large-scale ritual re-enactments of certain important incidents from the Mahabharata is more relevant to this paper in that even though these are of a different nature than Therukoothu dramatizations, koothu performers play an essential role in each of them. Although there is a great fluidity between what is depicted in the Therukoothu performing area and these enactments, it has been possible to set off distinctly at least five such large-scale ritual re-enactments during this festival. These all take place outside of both the temple precincts and the Therukoothu performing area but within the particular village's boundaries and a few koothu performers. The five incidents which are therefore 'ritually re-enacted' are the burning of the wax-palace; the killing of Baka, the Asura,

by Bhima; the erection of Siva's bow; the cattle raid on King Virata's kingdom; and the final defeat of Duryodhana, the Kaurava King. Due to want to space it will be possible here only to describe one of these, but this should be sufficient to communicate the essential aspects. In the incident dealing with defeat of Duryodhana, a large reclining mud figure approximately eighty feet long which had been previously beautifully fashioned and coloured by the villagers and in whose right thigh a mud pot containing chicken's blood as well as other ritually important substances had been placed represents the villainous king. Immediately, after the final koothu performance, *The Battle of the Eighteenth Day*, is over, two koothu performers playing Duryodhana and Bhima come beside this gigantic effigy and enact in Therukoothu style the final conclusive fight of the *Mahabharata*. As Duryodhana collapses in defeat his personality becomes instantaneously transferred to the mud sculpture and the performer playing Bhima, in the frenzy of possession, jumps onto it and smashes the pot placed in the thigh. This symbolizes the breaking of the Kaurava king's legs and his ultimate defeat. After this entire ritual enactment is complete the surging crowd of villagers will swarm over the Duryodhana figure. In some areas each person will struggle to get a handful of mud to place in his storeroom as it is believed that its presence will prevent any decrease in the grains stored there.

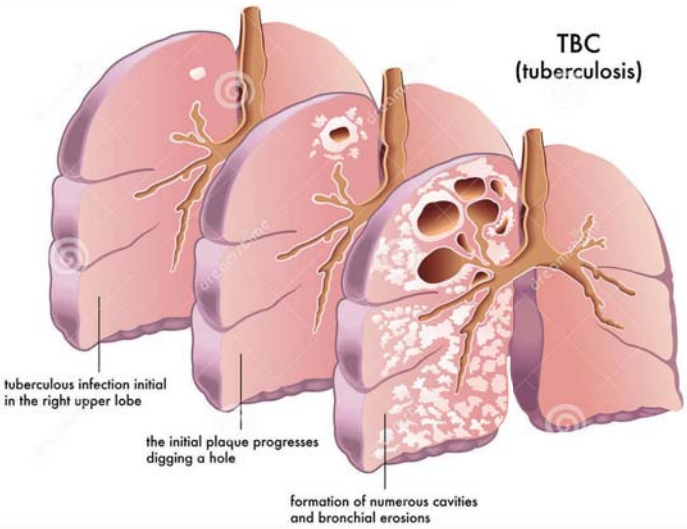
Though this study is a short one, it points out clearly that the full significance of the Therukoothu can only be truly understood when it is looked at within its original context. To study it solely as a performing art devoid of the ritual relevance which the above shows it obviously has would be to miss the most essential focus of this ancient Tamil dramatic form. ■

Beetroot

For anaemia beet root is also a good diet. Its color attracts all. As the carbohydrate in beetroot is in the form of sugar crystals it gets digested easily and joins the blood stream.

The Iron in beetroot helps the formation of new blood molecules. If the quantum of blood does not increase in spite of large consumption of green vegetables, greens and fruits, good results are obtained if beetroot is taken for 4 days in a week. Beetroot can be taken both as raw and as cooked.

(To know about correct food habits, approach the nearby Government Yoga and Naturopathy Doctor).



Tuberculosis

Q. What is the cause of tuberculosis?

A. Tuberculosis is not a hereditary disease. It is an infectious disease. Any person can get afflicted with TB. Whenever, a patient having active tuberculosis coughs or sneezes in an open manner, bacteria causing TB come out in the aerosol. This aerosol can infect any person who happens to inhale it.

Q. What are the symptoms of this disease?

A. Characteristic symptoms of TB are persistent cough of more than three weeks duration, cough with expectoration of sputum, fever, weight loss or loss of appetite etc. If any of these symptoms persist beyond three weeks, the person concerned should visit the nearest DOTS TB Centre or Health Centre and get his sputum examined.

Q. What are the investigations done for diagnosing TB and where are they available?

A. It is essential to get sputum examined on three consecutive days for TB bacteria in order to diagnose TB. In the NCT of Delhi, DOTS centres have been established at various places. The services provided at these centres are absolutely free.

Sputum for examination should be given after coughing properly. It is important not to give saliva in place of sputum. If saliva is submitted for examination, the disease may not be diagnosed.

Q. What is the treatment of TB?

A. If a full course of anti-tubercular drugs is taken on a regular basis, this disease is fully curable. A TB patient has to take medicines for a minimum period of six months continuously. The drugs may continue up to one year in some cases. It is important that the drugs are discontinued only on the advice of the doctor. Patients who do not take a complete treatment or take drugs on an irregular basis, their disease turns incurable or even life-threatening.

Q. Is the disease of TB curable?

A. Yes, this disease is fully curable if the treatment is taken on a regular and continuous basis for adequate duration.

Q. How can we prevent tuberculosis?

A. The disease of TB spreads whenever, patients cough or sneeze without covering their faces or spit here and there.

Hence, patients should always cover their faces while coughing or sneezing. One should not spit here and there and always use spittoon for coughing.

At home also, patients should spit in a box which is covered by a lid. Before disposing off the sputum, it should be boiled.

It is very important not to get scared or to hide the disease whenever someone develops the symptoms of TB. It is necessary that the person concerned may get himself/ herself examined and take adequate period.

Q. What is the diet to be given to a TB patient?

A. As per one's liking, TB patient can eat any type of food. There are no special diets necessary for a TB patient. One should avoid any foodstuff which causes any problem in that particular individual.

Q. What are the things to be avoided by a TB patient?

A. A patient of TB should avoid consumption of Beedi, Cigarette, Hookah, Tobacco, Alcohol or any other intoxicating drug.

Tuberculosis DO's and Dont's

DO's

- ✶ Have 2 sputum examinations done if you have cough of three weeks or more. These tests are done free of cost at Government sputum microscopy centres.
- ✶ Take all the medicines for the full prescribed period on regular basis.
- ✶ Understand that TB can be cured.
- ✶ Use handkerchief when coughing or sneezing.
- ✶ Spilt in spittoons containing house-hold germicides.

Dont's

- ✶ Don't avoid medical care if you have cough of three weeks or more.
- ✶ Don't rely only on X-ray for diagnosis of TB.
- ✶ Don't stop medicines before your physician discontinues them.
- ✶ Don't discriminate against TB patients.
- ✶ Don't spit indiscriminately.

Q. What is DOTS?

DOTS stands for Directly Observed Treatment Short course, the curative treatment for tuberculosis. It is the name for a comprehensive strategy which primary health services around the world are using to detect and cure TB patients. It combines five elements:

(i) Political commitment to a National Tuberculosis Control Programme.

(ii) Microscopy services to detect the infectious cases among those people attending health care facilities with symptoms of pulmonary tuberculosis, most importantly cough of 3 weeks duration or more.

(iii) Regular uninterrupted supply of anti-TB drugs. The establishment of a dependable, high quality supply of anti-TB drugs throughout the

health system is an essential part of the DOTS strategy to ensure that the treatment of TB patients is never interrupted.

(iv) Direct observation of the treatment for at least initial intensive phase. As a part of DOTS strategy health workers counsel and observe their patients swallowing each dose of powerful combination of medicines.

(v) Monitoring and accountability system for programme supervision and evaluation of treatment of each patient diagnosed.

Q. What are the advantages of DOTS

- ✶ DOTS produces cure rate high as 95 percent.
- ✶ DOTS guarantees quicker and surer relief from the disease.
- ✶ DOTS has changed the lives of 17 lakh patients in India.
- ✶ DOTS is a strategy for alleviating poverty. Saving lives, reducing the duration of illness, and preventing new infectious cases would mean fewer years of employment lost.
- ✶ DOTS prolongs survival of HIV-Infected TB patients.
- ✶ DOTS prevents treatment failure and the emergence of multi-drug resistant tuberculosis by ensuring patient compliance and uninterrupted supply of anti-TB drug.
- ✶ DOTS increases the reach of health services. The DOTS strategy has been remarkably successful in promoting the development of peripheral health services.
- ✶ DOTS is available for free at all Health Centres.

Q. How many DOTS centres are there in LRS Institute territory?

A. There are 18 DOTS cum Microscopy centres and 7 DOTS centres.

Q. What is Drug Resistant Tuberculosis?

A. In recent years tuberculosis has become a major problem because of emergence of Drug Resistant Tuberculosis which does not respond to the usual antibiotic given for simple tuberculosis. The reason for drug resistance is irregular and incomplete treatment taken by the patients. MDR TB can be prevented by taking medicines for tuberculosis regularly and for full duration. This form of tuberculosis requires medicines, which are very expensive and still may not work and the duration of the treatment can be more than 2 years.

Q. How TB & HIV are related?

A. Anyone can become infected with TB, but people with HIV and TB infection are at greater risk of getting sick with TB disease.

Even if you only have TB infection, the bacteria remains in your body and is still a threat to you. As your immune system is weakend by HIV, the bacteria can start growing and multiplying. It then becomes TB disease.

COUGH FOR TWO OR MORE WEEKS CAN BE T.B.

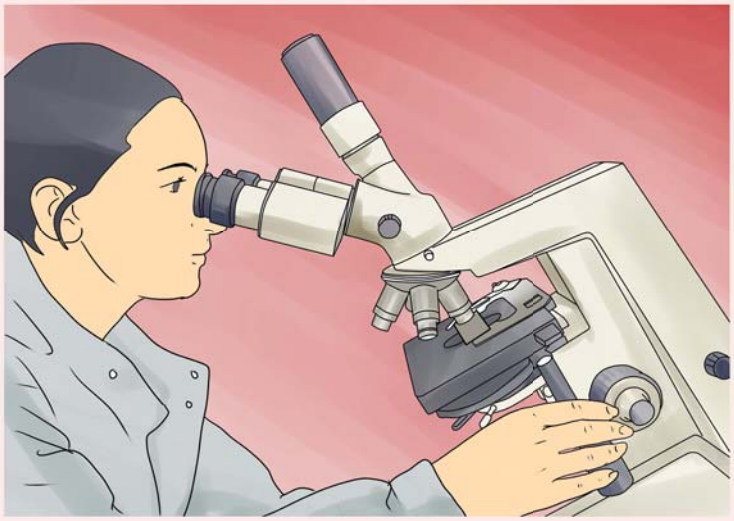
T.B. and MDR-T.B. Medicines are available Free of cost in all Govt. Hospitals of Tamil Nadu

SYMPTOMS OF T.B.

- Cough for two or more weeks.
- Evening rise of Temperature.
- Loss of appetite.
- Loss of weight.
- Sputum stained with blood.

SERVICES PROVIDED UNDER DOTS

- Sputum Examination is done Free of Cost in all Designated Microscopy Centres of Tamil Nadu.
- T.B. Medicines are given Free of Cost in all Govt. Hospitals of Tamil Nadu.



Complete Your Treatment, Incomplete and Irregular Treatment may lead to MDR-T.B.

DOTS System: Beginning with Sputum test, the complete treatment of T.B. Under observation of Health Service Provider, for Free T.B. and MDR-T.B. Medicines are available Free of cost in all Govt. Hospitals of Tamil Nadu.

Veeran Sundaralingam

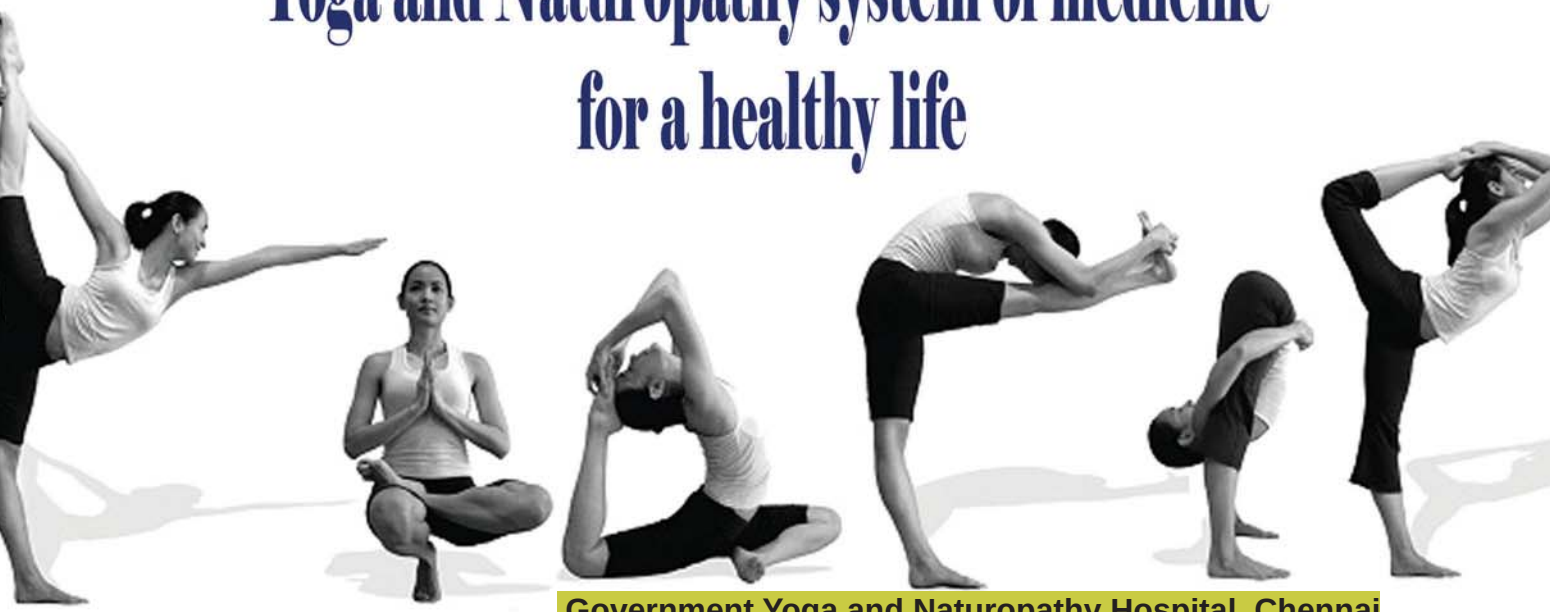
Veeran Sundaralingam (April 16, 1771) was a key lieutenant of the Veera Pandya Kattabomman who fought against the British East India Company. Rising from the depressed classes, Sundaralingam became Kattabomman's general and fought bravely against tremendous odds. He was born in Gavarnagiri village in Ottapidaram block of Thoothukudi district. According to some historical accounts, he was killed in 1799 while fighting for Kattabomman during the First Poligar War. The alternative view is that he was killed in the Second Poligar War (1800-1) while assisting Kattabomman's younger brother Oomaithurai.

There is an anecdote about how Kattabomman chose Sundaralingam as a warrior. He had Sundaralingam brought to a house and visited him there along with his secretary Thanapathi Pillai in the disguise of persons who wanted to loot the house. Sundaralingam would be given a share of the loot, so would he please collaborate? Sundaralingam opposed the move fiercely and thereby won Kattabomman's test for honesty and reliability.

Tips to stop using plastic

- **Take cloth bags with you when you go shopping. Why not make your own?**
- **Use a stainless steel drinks container to hold your beverages.**
- **Buy only the fruit and vegetables not packaged in plastic and lobby stores that refuse to sell loose organics.**
- **Purchase food in glass containers; avoid food packaged in plastics.**

Yoga and Naturopathy system of medicine for a healthy life



Government Yoga and Naturopathy Hospital, Chennai

Yoga and Naturopathy is a system of man building in harmony with the constructive principles of Nature on physical, mental, moral and spiritual planes of living. It has great health promotive, disease preventive and curative as well as restorative potential.

Yoga and Naturopathy is an art and science of healthy living and a drugless system of healing based on well founded philosophy. It has its own concept of health and disease and also principle of treatment. Naturopathy is a very old science. We can find a number of references in our Vedas and other ancient texts. The morbid matter theory, concept of vital force and other concepts upon which Naturopathy is based are already available in old texts.

The word "yoga" comes from the Sanskrit root yuj, which means "to join" or "to yoke". Originated in ancient India, Yoga typically means 'union' between the mind, body and spirit. It involves the practice of physical postures and poses, which is sometimes referred to as 'asana' in Sanskrit. As the name suggests, the ultimate aim of practicing Yoga is to create a balance between the body and the mind and to attain self-enlightenment. In order to accomplish it, Yoga makes use of different movements, breathing exercises, relaxation technique and meditation. Yoga is associated with a healthy and lively lifestyle with a balanced approach to life.

HEALTH according to WHO (WORLD HEALTH ORGANISATION)

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

HEALTH according to Naturopathy and Yoga

Health is the normal and harmonious vibration of the elements and forces which are composing the human entity and physical, mental and moral planes of being in conformity with the constructive principle of nature which can be applied to an individual life.

Basic principles of yoga and naturopathy medicine

The Healing Power of Nature. Naturopathic medicine recognizes an inherent self-healing process in the person that is ordered and intelligent. Naturopathic physicians act to identify and remove obstacles to healing and recovery, and to facilitate and augment this inherent self-healing process.

Identify and Treat the Cause. The naturopathic physician seeks to identify and remove the underlying causes of illness, rather than to merely eliminate or suppress symptoms.

First Do No Harm. Naturopathic physicians follow three precepts to avoid harming the patient:

- Utilize methods and medical substances which minimize the risk of harmful side effects, using the least force necessary to diagnose and treat.
- Avoid when possible the harmful suppression of symptoms.
- Acknowledge, respect and work with the individual's self-healing process.

Doctor As Teacher. Naturopathic physicians educate their patients and encourage self-responsibility for health. They also recognize and employ the therapeutic potential of the doctor-patient relationship.

Treat the Whole Person. Naturopathic physicians treat each patient by taking into account individual physical, mental, emotional, genetic, environmental, social and other factors. Since total health also includes spiritual health, naturopathic physicians encourage individuals to pursue their personal spiritual development.

Prevention. Naturopathic physicians emphasize the prevention of disease—assessing risk factors, heredity and susceptibility to disease and making appropriate interventions in partnership with their patients to prevent illness. Naturopathic medicine is committed to the creation of a healthy world in which humanity may thrive.

BASIC PRINCIPLES OF NATUROPATHY

1. The body heals itself.
2. The main cause of disease is enervation.
3. The accumulation of morbid matter is the root cause of diseases.
4. The acute disease in itself is the remedial process.
5. Germs don't cause but are found in disease condition.
6. Food is the building material but doesn't increase vitality.
7. Fasting create the environment to heal and cleanse the body and mind.
8. Exercise and physical activities keep the balance between nutrition and drainage.

PANCHATANTRAS OF NATUROPATHY

1. Eat twice a day.
2. Drink eight to ten glasses of water daily
3. Fast once a week
4. Do Yoga an hour daily.
5. Pray twice a day.

LIFESTYLE MODIFICATION DIET

- Increase intake of green leafy vegetables and fresh fruits.
- Consume less salt; avoid adding or sprinkling salt to cooked and uncooked food.
- Preparations which are high in salt, need to be moderated were: Pickles, chutneys, sauces and ketchups, papads, chips and salted biscuits, cheese and salted butter, bakery products and dried salted fish.
- Restrict all forms of sugar and refined carbohydrates.
- For example biscuits, breads, naan, kulchas, cakes, mathris etc.
- Steamed and boiled food should be preferred for fried food.
- Have fresh lime water instead of carbonated drinks and other aerated drinks.
- Avoid eating fast or junk foods. Instead of fried snacks, eat a fruit.
- In practice, it is best to use mixture of oils.
- Either buy different oils every month or cook different food items in different oils.
- Oils which can be mixed and matched are mustard oil, Soya bean oil, groundnut oil, olive oil, sesame oil and sunflower oil.
- Ghee, vanaspati, margarine, butter and coconut oil were harmful, hence they should be moderated.

YOGA

- Yoga is a key determinant of energy expenditure.
- Regular yoga is important for effective weight control.
- Regular practice of Yoga (moderate to vigorous) for 5-7 days per week; starts slowly and works up gradually. At least 30 minutes (accumulated) of yoga per day for cardiovascular disease protection. About 45 minutes/ day (accumulated) for fitness, and about 60 minutes/ day (accumulated) for weight reduction.
- Discourage spending long hours in front of TV.
- Encourage outdoor activities like cycling, gardening etc.

WEIGHT CONTROL

All individuals who are overweight or obese should lose weight through a combination of a low calorie diet and dynamic physical activity.

Overweight or obesity is assessed by measuring body mass index (BMI), which is calculated as weight in kg/height in meter

square (m^2). For Indian population 18.5 to 22.9 BMI is normal, 23 to 24.9 is considered as overweight and BMI of ≥25 is considered as obesity. Waist circumference is also an important measurement of central obesity and it should be <90 cm for men and <80 cm for women. Another measure of central obesity is Waist Hip Ratio (WHR). Normal WHR is <0.85 for women and <0.95 for men.

Patients with uncontrolled hypertension (≥200 / ≥110), uncontrolled diabetes (FBS ≥250 mg/dl), diminished vision due to diabetic/hypertensive retinopathy or for other reasons, recent myocardial infarction/unstable angina or stroke (within 6 weeks), and with uncontrolled angina (class III or more) are not advised to go for physical exercise and need to get doctors advise before doing any form of exercise.

THE FOLLOWING SPECIAL TREATMENTS ARE GIVEN IN YOGA AND NATUROPATHY SYSTEM OF MEDICINE

HYDROTHERAPY

- Spinal Bath
- Spray Spinal Bath
- Hip Bath
- Steam Bath
- Enema
- Fomentation
- Ice Pack
- Foot Bath

STEAM BATH

CLAY THERAPY

- Mud Bath
- Colour Glasses
- Plantain Leaf Bath

PLANTAIN LEAF BATH

YOGA

- Yogasana
- Bandha, Mudra
- Kriyas
- Yoga Nidra
- Chakras - Awareness and Meditation

YOGASANA

MASSAGE THERAPY

- Oil Massage
- Electrical Vibratory Massage
- Roller Massager
- Foot Massager

ROLLER MASSAGER

MAGNETO THERAPY

- Magnetic Belt
- High, Medium, Low Power Magnets

HIGH, MEDIUM, LOW POWER MAGNETS

FITNESS THERAPY

- Manual Treadmill
- Electrical Treadmill
- Rowing Machine
- Pulley

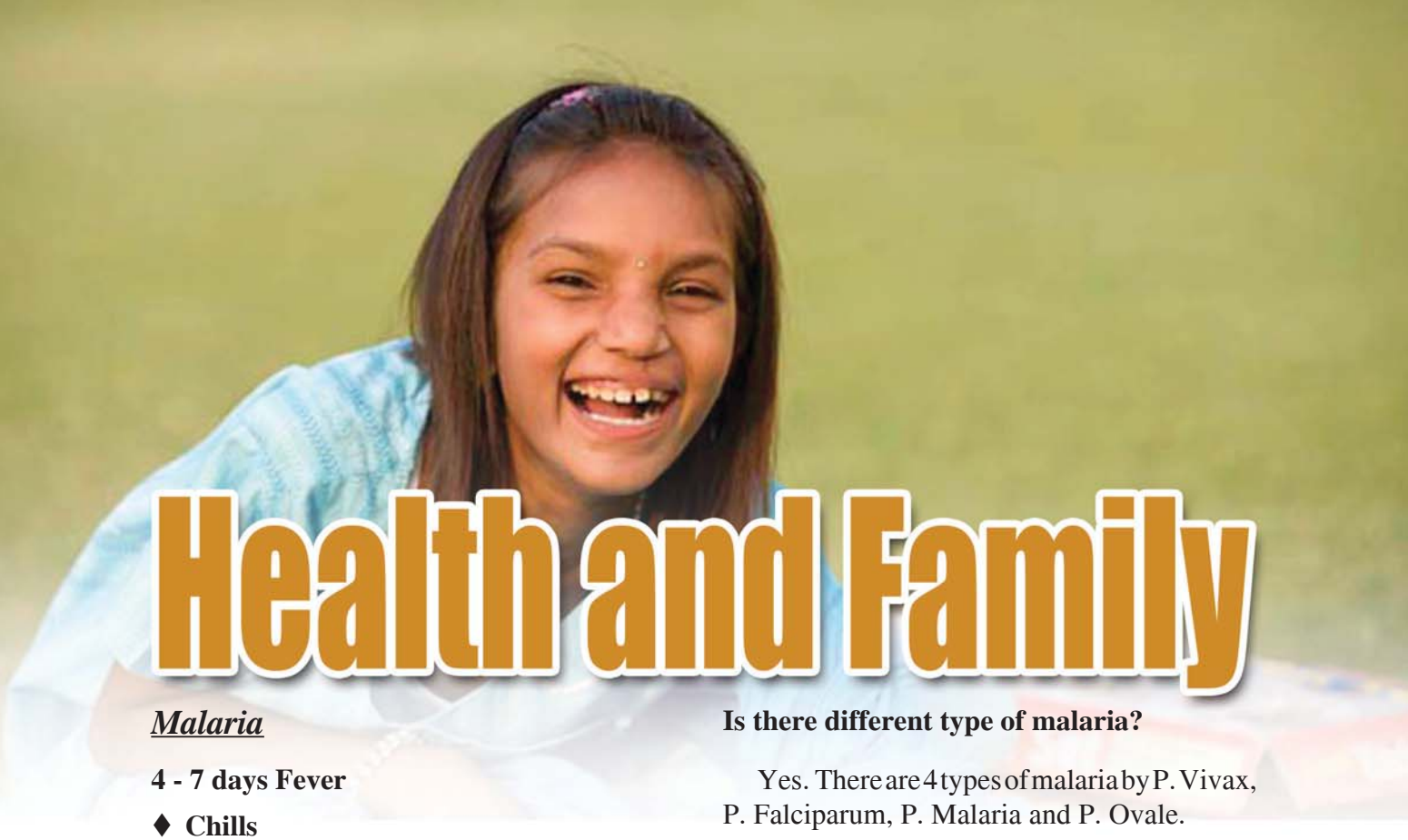
ROWING MACHINE

ACU THERAPY

- Acupuncture
- Acupressure

DIET THERAPY

ACUPUNCTURE



Health and Family

Malaria

4 - 7 days Fever

- **Chills**
- **Body ache**
- **Headache**
- **Rigor**
- **Muscle Pain**
- **Joint Pain**

What is Malaria?

Malaria is a parasitic disease caused by the Genus Plasmodium and spread by female Anopheles mosquitoes.

What are the symptoms of Malaria?

Fever, Headache, Bodyache, Rigor and chill.

How does malaria spread?

Malaria is spread by the female anopheles mosquitoes which breeds in fresh water collections like OHTs, Cisterns, wells etc. There is no direct transmission from the infected person to the healthy person. Malaria is spread only through the live of infected mosquito.

Is there different type of malaria?

Yes. There are 4 types of malaria by P. Vivax, P. Falciparum, P. Malaria and P. Ovale.

How to eliminate the breeding of mosquitoes?

Proper sealing of Over Head Tanks, wells and covering all water containers preventing mosquitoes from laying eggs and thereby breeding.

How does a person know that he is suffering from malaria?

Any person having fever and headache should be suspected as a malaria case and his blood should be examined for confirming the same or otherwise.

Is there any specific treatment for Malaria ?

Yes. All the suspected cases should be given presumptive treatment with chloroquine tablets as per the drug schedule after taking blood smear.

After examining the blood-smear, if the person is found positive for malaria, radical treatment with primaquine should be administered.

How to control Malaria?

I. Taking complete radical treatment will prevent transmission of malaria parasites.

II. Anti-larval activities by application of Temephos

III. Anti-adult measures by spray operations in problem areas

IV. Intensified IEC activities.

Treatment Facilities:

Treatment is " FREE " in all Government Hospitals, Primary Health Centres and Malaria Clinics.

SWINE INFLUENZA A (H1N1)

What is swine flu A (H1N1)?

Swine Influenza (swine flu) is a respiratory disease of pigs caused by type A influenza viruses that causes regular outbreaks in pigs. People do not normally get swine flu, but human infections can and do happen. Swine flu viruses have been reported to spread from person-to-person, but in the past, this transmission was limited and not sustained beyond three people.

Is this swine flu contagious?

Yes.This swine influenza A (H1N1) virus is contagious and is spreading from human to human. However, at this time, it is not known how easily the virus spreads between people.

What are the signs and symptoms of swine flu?

The symptoms of swine flu in people are similar to the symptoms of regular human flu and include fever, cough, sore throat, body aches, headache, chills and fatigue. Some people have reported diarrhea and vomiting associated with swine flu. In the past, severe illness (pneumonia and respiratory failure) and deaths have been reported with swine flu infection in people. Like seasonal flu, swine flu may cause a worsening of underlying chronic medical conditions.

How does swine flu spread?

Flu viruses are spread mainly from person to person through coughing or sneezing of people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

What are the protective measures that one should take?

First and most important: wash your hands. Try to stay in good general health. Get deep sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious

food. Do not touch surfaces that may be contaminated with the flu virus. Avoid close contact with people who are sick. Don't use their clothes. Avoid travel to the infected countries.

Are there medicines to treat swine flu?

Yes. CDC, Atlanta recommends the use of oseltamivir or zanamivir for the treatment and Chemoprophylaxis of infection with these swine influenza viruses.

What one should do if he/she is sick?

If you live in areas where swine influenza cases have been identified and become ill with influenza-like symptoms, including fever, body aches, running nose, sore throat, nausea, or vomiting or diarrhoea, you may want to contact their health care provider, particularly if you are worried about your symptoms. Your health care provider will determine whether influenza testing or treatment is needed.

If you are sick, you should stay home and avoid contact with other people as much as possible to keep from spreading your illness to others.

If you become ill and experience any of the following warning signs, seek emergency medical care.

In children emergency warning signs that need urgent medical attention include:

- ✶ Fast breathing or trouble breathing
- ✶ Bluish skin color
- ✶ Not drinking enough fluids
- ✶ Not waking up or not interacting
- ✶ Being so irritable that the child does not want to be held
- ✶ Flu-like symptoms improve but then return with fever and worse cough
- ✶ Fever with a rash

In adults, emergency warning signs that need urgent medical attention include:

1. Difficulty breathing or shortness of breath
2. Pain or pressure in the chest or abdomen
3. Sudden dizziness
4. Confusion
5. Severe or persistent vomiting

What is the Helpline Phone number?

044-24321569

<u>Chikungunya</u>

2 - 7 days Fever

- ♦ **Joint Pain**
- ♦ **Muscle Pain**
- ♦ **Head ache**
- ♦ **Rashes**
- ♦ **Lymphadenopathy**

What is Chikungunya?

Chikungunya is a fever caused by Chikungunya virus transmitted by Aedes aegypti mosquitoes which breeds in clean water stagnation in artificial containers.

What are the signs and symptoms of Chikungunya?

One to three days fever followed by headache, vomiting, photophobia, joint pain

and swelling with or without rashes. If the fever lasts for more than 3 days, investigations are to be carried out to rule out the other causes.

How to differentiate with other fevers?

The fever will not last longer than 3 days. The joint swelling and pain will persist even after the recovery from the fever. The swelling and joint pain may persist 1- 3 weeks or even months depending on the age of the patient.

How Chikungunya is transmitted?

There is no direct transmission from the infected person to healthy person. It is transmitted by the bite of the infected mosquito.

Is there specific treatment for Chikungunya?

There is no specific treatment but drugs like paracetamol, diclofenac sodium, chlroquine are used to relieve fever, joint pains and swelling. Drugs like asprin and steroids should be avoided.

Do we need a blood test for all Chikungunya cases?

No. There is no need to do blood test to confirm Chikungunya. Clinical diagnosis is enough. Fever with joint pain followed by swelling are the cardinal signs of Chikungunya.

What is the status in Tamil Nadu?

The first outbreak of Chikungunya reported in Vellore on 20th March 2006 and thereafter spread to other parts of Tamil Nadu. The worst affected districts are Vellore, Namakkal, Dharmapuri and Krishnagiri districts.

What is the best way to prevent Chikungunya?

There is no direct human to human transmission. The infection is transmitted only through bite of infected mosquito. The best way of prevention is to eliminate domestic and peridomestic breeding of mosquitoes.

How to eliminate the breeding of mosquitoes?

Remove all unwanted water containers around the houses.

Inside the house, the easiest way is to cover all water containers with cloth including the cement tubs, drums and vessels. This will prevent mosquitoes laying of eggs and thereby prevent mosquito breeding.

How anti larval and anti adult measures are carried out?

Temephos is a chemical used to carry out anti larval activities. 2.5 ml in 10 litres of clean water will give a dilution less than 1 ppm. This stock solution is applied to the water containers based on the height of the water columns.

Pyrethrum extracts is used to carry out anti-adult measures by fogging operation.

What are the other diseases transmitted by other types of mosquitoes?

Anopheline mosquito which breeds in clean water like wells, overhead tanks and sumps – transmits malaria.

Culex mosquito which breeds in sewage and sullage water, drains and septic tanks - transmits filariasis.

Another species of culex mosquito which breeds in paddy fields - transmits Japanese Encephalitis (Brain fever).

Dengue

5-6 days Fever

- ✶ Headache
- ✶ Pain behind the eye
- ✶ Rashes
- ✶ Muscle Pain
- ✶ Body Pain
- ✶ Severe pain in the bones

What is dengue?

Dengue (pronounced den' gee) is a disease caused by any one of four closely related viruses (DEN-1, DEN-2, DEN-3, or DEN-4). The viruses are transmitted to humans by the bite of an infected mosquito(Aedes aegypti). The Aedes aegypti mosquito is the vector of dengue/DHF. It is estimated that there are over 100 million cases of Dengue worldwide each year.

What is dengue hemorrhagic fever (DHF)?

DHF is a more severe form of dengue. It can be fatal if unrecognized and not properly treated. DHF is caused by infection with the same viruses that cause dengue. With proper management, mortality due to DHF can be reduced.

How are dengue and dengue hemorrhagic fever (DHF) spread?

Dengue is transmitted to people by the bite of an Aedes mosquito that is infected with a dengue virus. The mosquito becomes infected with dengue virus when it bites a person who has dengue or DHF and after about a week can transmit the virus while biting a healthy person. Dengue cannot be spread directly from person to person.

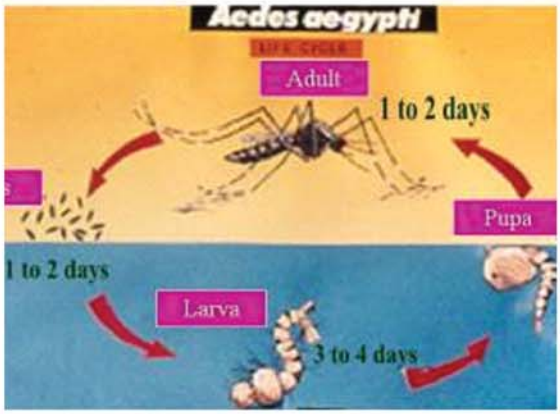
What are the symptoms of the disease?

The principal symptoms of dengue are high fever, severe headache, backache, joint pains, nausea and vomiting, eye pain, and rash. Generally, younger children are more affected than older children and adults.

Dengue hemorrhagic fever is characterized by a fever that lasts from 2 to 7 days, with general signs and symptoms that could occur with many other illnesses (e.g., nausea, vomiting, abdominal pain, and headache). This stage is followed by hemorrhagic manifestations, tendency to bruise easily or other types of skin hemorrhages, bleeding nose or gums, and possibly internal bleeding. The smallest blood vessels (capillaries) become excessively permeable ("leaky"), allowing the fluid component to escape from the blood vessels. This may lead to failure of the circulatory system and shock, followed by death, if circulatory failure is not corrected.

What is the treatment for dengue?

There is no specific medication for treatment of a dengue infection. Persons who think they have dengue should use analgesics (pain



relievers) with paracetamal and avoid those containing aspirin. They should also rest, drink plenty of fluids, and consult a physician.

Is there an effective treatment for dengue hemorrhagic fever (DHF)?

As with dengue, there is no specific medication for DHF. It can however be effectively treated by fluid replacement therapy if an early clinical diagnosis is made. Hospitalization is frequently required in order to adequately manage DHF.

How can we prevent epidemics of dengue hemorrhagic fever (DHF)?

The emphasis for dengue prevention is on sustainable, community-based, integrated mosquito control, with limited reliance on insecticides (chemical larvicides and adulticides). Preventing epidemic disease requires a co-ordinated community effort to increase awareness about how to control the mosquito that transmits it. Residents should be made responsible for keeping houses and surroundings free from mosquito breeding by emptying & scrub drying the rotate containers once a week.

Japanese Encephalitis

1-3 days Continuous Fever

- ✶ High Temperature (100-107 Degree F)
- ✶ Head ache
- ✶ Vomiting
- ✶ Neck rigidity / Convulsions

What is Japanese Encephalitis?

Japanese Encephalitis is a viral Zoonotic disease. It is caused by the Japanese Encephalitis(B) virus. It is an arbovirus belongs to family Flaviviridae, Closely related to West Nile, St. Louis & Kunjin viruses.

These virus is present mainly in the birds & human being acquire this virus accidentally. It is febrile illness involving the Central Nervous System.

What are the signs and symptoms of Japanese Encephalitis?

The course of the disease can be conveniently divided into 3 stages:

A. Prodromal stage.

B. Acute encephalitic stage.

C. Late convalescent stage.

Prodromal stage:

General malaise, abrupt onset of acute fever, head ache often accompanied with vomiting, ranges from 1 to14 days (average of 1 – 3 days).

Acute encephalitic stage:

Continuous fever (100 to 107 F), Stiff Neck, convulsions, Altered sensorium, Focal CNS signs, Delirium, Stupor and finally progressing to coma. Most death occurs in this stage.

Late convalescent stage:

Temperature returns to normal, Neurological signs stationary or tend to improve residual neurological deficit are common.

How Japanese Encephalitis is transmitted?

Transmitted by certain species of Cx.vishnui group of mosquitoes like Cx. Vishnui,

Cx.pseudovishnui, Cx.tritaeniorhynchus etc. Enters the system by the bite of infected mosquito. The migratory birds carry the virus in them which is transmitted to man through the amplifier host (pig) by the mosquitoes.

Where do the Japanese encephalitis vector mosquitoes breed?

They breed mainly in Paddy fields.

Is there specific treatment for Japanese Encephalitis?

There is no specific treatment for this disease .The treatment is essentially supportive and symptomatic.

How to eliminate the breeding of mosquitoes?

Intermittent irrigation (following one dry day a week) is the only way to eliminate the breeding of mosquitoes.

Using of neem coated urea in paddy fields.

Cholera

- ✶ Vomiting
- ✶ Severe Diarrhoea
- ✶ Loss of Fluid

What is cholera?

Cholera is a bacterial disease that affects the intestinal tract. It is caused by a germ called Vibrio cholerae. Although only a few cases are recognized in the United States each year, epidemic levels of cholera have recently been reported in parts of Central and South America.

How is the germ spread?

The cholera germ is passed in the stools. It is spread by eating or drinking food or water contaminated by the fecal waste of an infected person. This occurs more often in underdeveloped countries lacking adequate water supplies and proper sewage disposal.

What are the symptoms of cholera?

People exposed to cholera may experience mild to severe diarrhoea, vomiting and dehydration. Fever is usually absent.

What is the treatment for cholera?

Because of the rapid dehydration that may result from severe diarrhoea, replacement of fluids by mouth or by the intravenous route is critical. Antibiotics, such as tetracycline, are also used to shorten the duration of diarrhoea and shedding of the germs in the feces.

How can cholera be prevented?

The single most important preventive measure is to avoid consuming uncooked foods or water. The next important preventive measure is sanitary disposal of excreta and handwashing with soap after defecation.

Typhoid

Fever (10-15 days)

- ✶ Headache
- ✶ Diarrhoea / Constipation

What is typhoid fever?

Typhoid fever is a bacterial infection of the intestinal tract and occasionally the bloodstream. The germ that causes typhoid is a unique human strain of salmonella called Salmonella typhi.

How is the germ spread?

Typhoid germs are passed in the feces and, to some extent, the urine of infected people. The germs are spread by eating or drinking water or foods contaminated by feces from the infected individual.

What are the symptoms?

Symptoms may be mild or severe and may include fever, headache, constipation or diarrhoea, rose-colored spots on the trunk and an enlarged spleen and liver. Relapses are common. Fatalities are less than one percent with antibiotic treatment.

How is typhoid treated?

Specific antibiotics such as chloramphenicol, ampicillin or ciprofloxacin are often used to treat cases of typhoid.

Should infected people be isolated?

Because the germ is passed in the feces of infected people, only people with active diarrhoea who are unable to control their bowel habits (infants, certain handicapped individuals) should be isolated. Most infected people may return to work or school when they have recovered, provided that they carefully wash hands after toilet visits. Children in daycare, health care workers, and persons in other sensitive settings must obtain the approval of the local or state health department before returning to their routine activities. Food handlers may not return to work until three consecutive negative stool cultures are confirmed.

How to Control Typhoid?

The control of typhoid fever must take the form of improved sanitation and domestic and personal hygiene.

Leptospirosis

Fever (2-7 days)

- ✶ Chills
- ✶ Headache
- ✶ Muscle Pain
- ✶ Joint Pain
- ✶ Conjuctive Suffusion
- ✶ Rashes
- ✶ Jaundice

What is Leptospirosis?

It is a bacterial disease caused by a spirochaete, Leptospira interrogans affecting human and animals.

What are the symptoms of Leptospirosis in humans?

High fever, severe headache, Chills, Vomiting, Conjuctival suffusion, Muscle ache, Jaundice and Haemorrhagic manifestations are the common symptoms of Leptospirosis.

How does Leptospirosis spread?

It is spread to humans through contact with the environment contaminated with the urine of carrier animals (infected animals). Direct transmission of leptospirosis is rare.

Which animals act as carrier animals?

In Tamil Nadu, the most common carrier animals are Rats, Cow, Buffalo, Goat, Sheep and Dogs .

How to differentiate Leptospirosis from other fever?

Acute febrile illness with headache, myalgia associated with conjuctival suffusion, Jaundice, living in an environment contaminated with animal urine or a history of exposure to infected animals can be suspected for Leptospirosis.

Will Leptospirosis cause death?

The severe form of the disease characterized by severe jaundice with Multi-organ failure may lead to death.

What is the specific treatment for Leptospirosis?

For confirmed Leptospirosis cases, the treatment is Inj. Benzathine Penicillin – 5 million units/day for 5 days. For hyper reactive cases, Tab. Erythromycin 250mg - 4 times/day for 5 days or Tab. Doxycycline 100 mg twice daily for 10 days.

Hepatitis

- ✶ Low grade Fever
- ✶ Nausea and vomiting
- ✶ Abdominal pain
- ✶ Dark urine
- ✶ Yellowing of skin and white of eyes. (Jaundice)

What is Hepatitis?

Hepatitis A is a highly contagious liver infection caused by the hepatitis A virus (HAV). Hepatitis A causes inflammation that affects your liver's ability to function.

How does it spread?

It is contracted from contaminated food or water or from close contact with someone who's already infected.

What are the symptoms of Hepatitis?

Symptoms in young children will be mild, but symptoms in older children and adults are likely to be more severe. The signs and symptoms appear suddenly and may be mistaken for intestinal flu.

The symptoms are:

- ✶ Fatigue
- ✶ Nausea and vomiting
- ✶ Abdominal pain or discomfort, especially in the area of your liver on your right side beneath your lower ribs
- ✶ Loss of appetite
- ✶ Low-grade fever
- ✶ Dark urine
- ✶ Muscle pain
- ✶ Itching
- ✶ Yellowing of skin and white of eyes. (Jaundice)

What are the complications of Hepatitis?

In severe cases liver damage leading to liver failure - a life threatening condition may develop.

What is the treatment for Hepatitis?

No specific treatment exists for hepatitis. Instead, the main focus is on making sure you get adequate nutrition and avoid any permanent liver damage. Soft, easily digestable foods are suggestive.

What precautions should the infected person follow?

The most important precautions are careful handwashing after each toilet visit and proper disposal of sewage.

How to prevent Hepatitis?

Hepatitis is highly contagious. Preventing the spread of the virus involving self protection and protecting others from infection is important. The protective measures are:

Hepatitis vaccine

Good hygiene

Good sanitation ■

Be cool as a cucumber In Sizzling Summer

Summer time is far from being a pleasant time if you are in the plains and are not heading for the hills. In fact, a typical summer day can feel like an oven that has been put on a really high pre-heated temperature mark! Yet, if you follow some simple tips, you can remain as cool as cucumber. Read on to know more.

Besides the essentials, like applying tons of sunscreen lotion and wearing loose fitting, preferably cotton clothes, here are a few tips that will keep help you keep cool in the sweltering Indian summer!

✶ Besides drinking plenty of water, drink a lot of fluids to avoid dehydration. The ever-popular nimbu pani or lime juice is an excellent drink to feel refreshed. If you are cautious of drinking lemonade, then the natural thirst-quencher is tender coconut water. Tender coconut water contains sugar, fiber, and proteins along with vitamins and minerals.

✶ Eat a lot of salads and fresh fruits that naturally contain water, like water melon – in fact this fruit contains nearly 92% water and up to 14% of vitamin C. This will make up for the moisture content that you lose through sweating. Traces of vitamin B and potassium are also found in this fruit.

✶ Drink water that is stored in earthenware pots. So that we can beat the heat with cool drinking water.

✶ Avoid eating oily food and especially avoid eating cut fruit from vendors as it may have been exposed to flies and dust.

✶ When you feel warm indoors hang a wet sheet by an open window. This way you will get cool air from the water as it evaporates and blows toward you from the open window.

✶ Close your windows before it gets too hot outside. The heat will otherwise get sucked in, especially if the temperature outside is over 77 degrees Fahrenheit.

✶ You could keep a spray bottle filled with water in the refrigerator so that you can spray yourself at regular intervals. The evaporation of the water will cool down the blood flowing through your veins.

✶ We enjoy a spicy meal even when it's hot, since the capsaicin in the hot peppers makes them perspire and when the sweat evaporates it makes one feel quite cool! So do try a spicy dish on a hot summer day to experience this magic!

✶ If all else fails, why don't you take a break and head to any of India's hill stations and refresh yourself with its breathtaking beauty?

THE LIFE OF LOVE

-by KAHLIL GIBRAN

SPRING

COME my beloved, let us walk among the little hills, for the snows have melted and life is awakened from its sleep and wanders through the hills and valleys.

Come, let us follow the footsteps of Spring in the far-off field;

Come and we will ascend the heights and look upon the waving greenness of the plains below.

The Dawn of Spring has unfolded the garment concealed by the Winter night and the peach tree and the apple wear it, adorned as brides on the Night of Power.

The vines are awakened, their tendrils entwined like the embrace of lovers.

The streams run and leap among the rocks singing songs of rejoicing.

The flowers are bursting forth from the heart of Nature as foam from the crest of sea waves.

Come, my beloved, let me drink of the last of rain's tears from narcissus cups and make full our spirits of the joyful songs of birds.

Let us breathe the scent of the breeze and sit by yonder rock where hides the violet, and give and take of Love's kisses.

SUMMER

Arise, my love, to the field, for the days of the harvest are come and the time of reaping is nigh.

The grain is ripened by the sun in the warmth of its love to Nature;

Come, ere the birds reap the fruits of our labour and the ants consume our land.

Come, let us garner the earth's yield as the spirit does grains of bliss from fulfillment's sowing in the depths of our hearts,

And fill our bins with Nature's bounty as Life does the storehouses of our souls.

Come, my mate, let us make of the grass our couch and the heavens our coverlet.

Lay us down our heads on a pillow of soft hay and seek thereon repose from the toil of the day and hearken to the music of the murmur of the brook in the valley.

AUTUMN

Let us go to the vineyard, my love, and press the grapes and store the wine thereof in vessels as the spirit stores the wisdom of ages.

Let us gather the fruits and distil from the flowers their fragrance.

Let us return to the dwellings, for the leaves of the trees are become yellow and the winds have scattered them to make of them a burial shroud for flowers that died grieving at summer's passing.

Come, let us go, for the brooks have ceased their flowing and the springs are no more, for the tears of the tears of their joy are dried up; and the hillocks have cast aside their fine garments.

Come, beloved. For Nature is overcome by sleep and bids farewell to wakefulness with sad and wishful melody.

WINTER

Draw nigh unto me, my soul-mate. Draw nigh and let not icy breath separate our bodies. Sit you with me by this fire-side, for fire is winter's fruit.

Speak with me of things of the ages, for mine ears are wearied of the wind's sighing and the elements' lamenting.

Make fast door and window, for the angry face of Nature makes sad my spirit, and to look upon the city beneath the snows sitting like a mother bereaved causes my heart to bleed.

Fill you, then, the lamp with oil, for it is already dim. Put it beside you that I may see what the nights have writ on your face, Bring hither the wine-jar that we may drink and remember the days of the pressing.

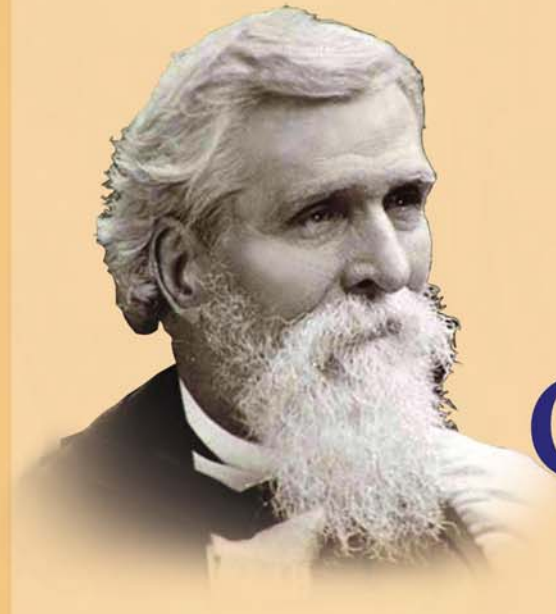
Draw nigh to me, loved of my spirit, for the fire is dying and ashes conceal it.

Embrace me, for the lamp is dimmed and darkness has conquered it.

Heavy are our eyes with the wine of years.

Look on me with your sleep-darkened eyes. Embrace me ere slumber embrace us. Kiss me, for the snows have prevailed over all save your kiss.

Ah, my beloved one, how deep is the ocean of sleep. How distant the morning. . . in thus night.



Robert Caldwell in South India

Robert Caldwell was an Evangelist missionary and linguist who worked for over fifty years ministering to 'the poorest of the poor' in Tirunelveli. He arrived first at Madras in 1838 as a non-conformist minister under the auspices of the LMS (London Missionary Society). There he learnt Tamil and was so attracted by the beauty of the language that he also explored its rich literature and poetry and became familiar with some of the other languages of the region. He had walked 800 miles south to the village of Idaiyangudi where he established his mission station: it was to be his home for the next 36 years.

His life is still remembered in India, and the influence of his name and the schools that he and his wife, Eliza, founded echo today in the lives of the men and women of South India whatever their faith. Many of them are the beneficiaries of the Tamil revival and the Non-Brahmin movement as a whole to which Caldwell was an important stimulus. His role as "a pioneer Dravidian linguist" was acknowledged in 1968 when his statue was erected on the Marina Beach in Madras. In 2010 the government paid this 19th century 'foreign' missionary the considerable compliment of issuing a postage stamp in his memory.

At the end of Robert Caldwell's last visit to England when friends tried to persuade the old missionary to remain at home, his reply illustrates his affection for the people of Tamil Nadu: "I wish to die amongst the people for whom I have lived", and in 1891 after half a century of labour, his wish was fulfilled. He and Eliza are buried beneath the chancel of Holy Trinity, Idaiyangudi, the church which he took 33 years to build.

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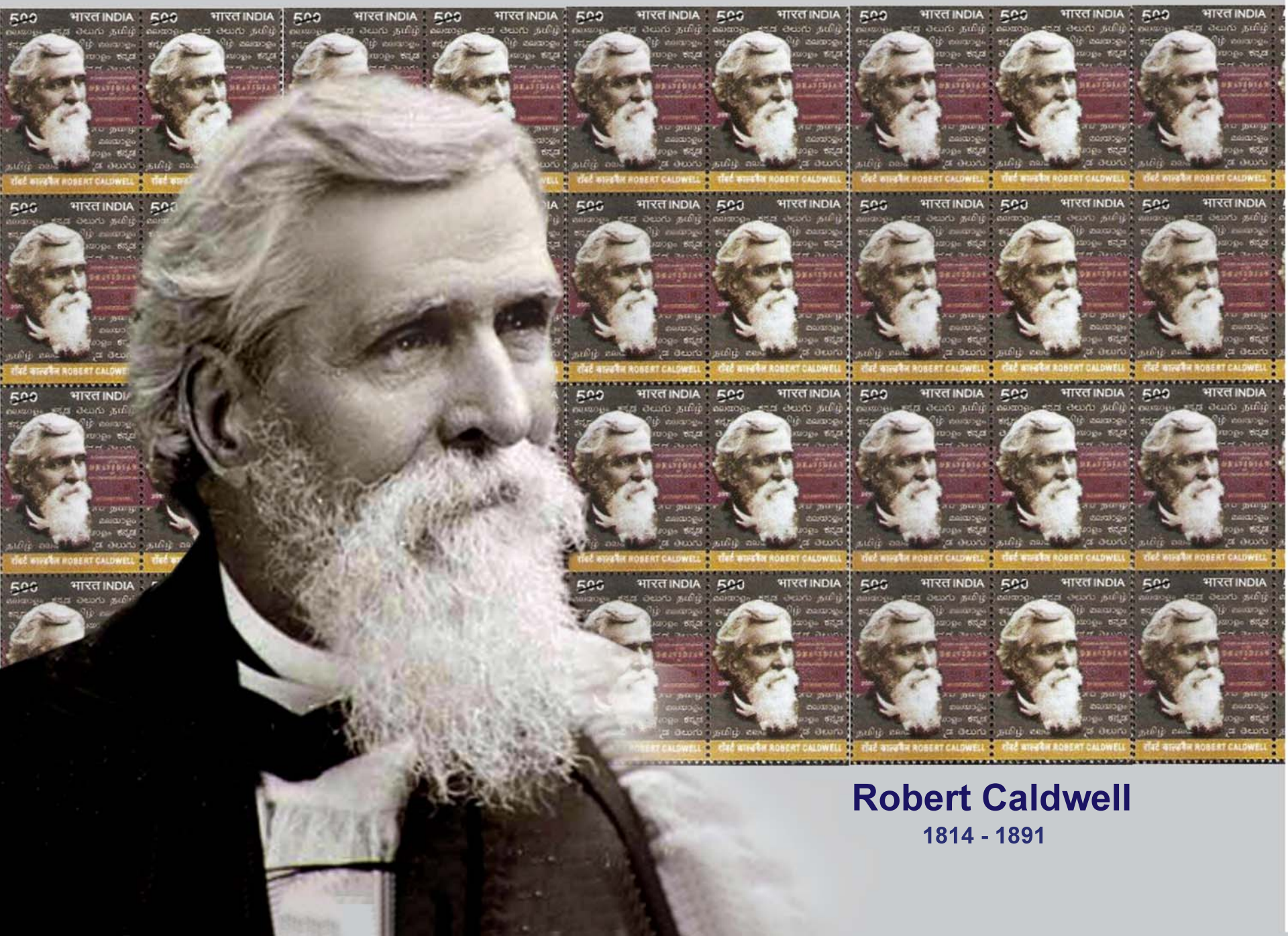

Robert Caldwell

1814 - 1891

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