

Shishir-Vasant'95

Child Care
Special
International Year of the Child

Bimonthly
Jeevaniya
Health Care Magazine

Rs. 12



Breast Feeding • Teething Precautions
Rickets in Children • Sickle Cell Anaemia
Rights of the Child • Bed-Wetting by Kids
Diarrhoea in Infants • Mentally Retarded Children

With All Other Regular Columns

Honorary Editorial Board

Vd. Badloo Ram Rasik
 Dr. B.N. Mehrotra
 Dr. C.S. Saimbi
 Dr. Hari Prakash Sharma
 Pt. Kashinath Gopal Gore
 Dr. M. P. Shukla
 Dr. Paras Nath Mishra
 Dr. Prem Sagar
 Vd. Purna Chandra Jain
 Dr. Ravi Kumar Sharma
 Dr. Renu Mahendra
 Vd. Sultan Ali Khan

Executive Editor

Dr. N.N. Mehrotra
 Convenor

Pt. Madhavacharya

Editorial Assistant

Ms. Veena Tandon

Mr. K.B. Singh

Cover Photo

Anupam Kumar

Art

Sri S. Sengupta

Editorial Office

Jeevaniya
 E-III/249, Sector-H, Aliganj,
 Lucknow-226020
 Phone : 0522-77568

Guest Editors

Vd. D. N. Mishra
 Dr. Rashmi Kumar



Year 5, No. 5-6

16 Jan. 1995 - 15 May 1995

Printed and published by Dr. N.N. Mehrotra on behalf of Jeevaniya Society. Printed at Prakash Packagers, 257 Golaganj, Lucknow and published from E-III/249 Sector-H, Aliganj, Lucknow. Editor-Dr. N.N. Mehrotra.

Advisory Editorial Board

Dr. Bhartendu Prakash, Banda
 Dr. Uma, Bangalore
 Vd. B.V. Sathye, Bombay
 Vd. N.S. Bhatt, Bombay
 Vd. Ramesh M. Nanal, Bombay
 Vd. Bhagwan Dash, Delhi
 Dr. Geeta Bamezai, Delhi
 Vd. Mayaram Uniyal, New Delhi
 Vd. Vivekanand Pandey, Delhi
 Vd. Ayodhya Prasad Achal, Gaya
 Sri A.V. Balasubramanian, Madras
 Dr. T. K. Razzack, Palakkad
 Vd. Shiv Kumar Mishra, Pilibhit
 Vd. Subhash Ranade, Pune
 Vd. V.B. Mhaikar, Vadodara
 Vd. R.H. Singh, Varanasi

We acknowledge a grant from CAPART towards publication of this magazine.

All legal matters concerning Jeevaniya will be under the jurisdiction of Lucknow courts.

— Editor

Annual Subscription Rates *

Country/Category	India	Bhutan, Nepal, Pakistan, Bangladesh & Sri Lanka		APPU Member Countries		Rest of the World	
	(Rs.)	US \$					
INDIVIDUALS		Air Mail	Surface Mail	Air Mail	Sea Mail	Air Mail	Sea Mail
Annual	50	20	15	30	25	40	30
Biannual	90	35	30	50	45	55	50
Triannual	130	50	40	65	60	70	65
Life	500	N.A.		N.A.		N.A.	
INSTITUTIONS							
Annual	100	35	30	50	40	60	55
Biannual	180	65	60	80	75	90	85
Triannual	260	90	80	110	105	115	110
Life	1000	N.A.		N.A.		N.A.	

* 10% rebate on subscriptions is allowed to LSPSS-members and voluntary organizations.

Please send your payment by M.O. or Demand Draft in favour of Jeevaniya Society, Lucknow. Outstation Cheques are not accepted.

Subscription includes despatch by ordinary post. Those desirous of getting their copy by Registered post should add Rs. 35 in these subscription charges.

A Pious Wish

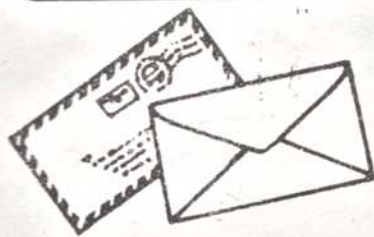


The Government of India has recently announced creation of six new departments, one of which pertains to promotion of Indian Systems of Medicine (ISM). This is certainly a step which can be useful not only for the development of these systems but also for strengthening the infrastructure of primary health care in the country and making it effective in health care delivery, particularly for the vast majority of rural poor. However, in order to make it effective, it has to be ensured that the department itself becomes efficiently functional. The centre should clearly show that the declaration of creating these departments is not merely for display. While the five other departments have got full-time secretaries, the ISM department has been left rudderless, at least for the time being.

The second most important decision will be to make arrangements for adequate finances in the absence of which the department will continue to be on paper only. Currently, about 95% of the Central Government's Health budget is spent on the promotion of Allopathy and the health care services based on the same. The budget of family welfare, almost totally goes into the kitty of Allopathy. Under such conditions, expectation of any miracles from ISM will be akin to expecting a gold medal in olympic competitions from a hungry, half clad poor man. Thirdly, these can be useful only if an effective health care infrastructure is created based on these systems.

Though health care services come under the state list but some effective central schemes can be launched for encouraging and strengthening these systems, besides setting up health care services based on these systems. However, the physicians of these systems should be given freedom to operate independently. There may not be any need for setting up a separate infrastructure. But it has to be ascertained that such schemes will not be as ineffective as the scheme of third physician of ISM posted at PHCs. It will be appropriate that the physicians of different systems of medicine have equivalent amount of resources at their command with adequate freedom to take decisions on the basis of equality in the infrastructure of primary health care. At least a National programme of Mother and Child Care should be launched at an earliest where traditional Birth Attendants (Dais) must be effectively involved whereby they will contribute with all their might to health care of this vulnerable section rather than merely meeting the family planning targets.

It is time that the traditional physicians and other health workers spread across the country will prove to be an effective asset if they are actively involved in the health care services of the country but the same shall certainly not happen by merely announcing creation of a department. Until adequate funds and infrastructure are provided for meaningful programmes, it will at best continue to be merely a good intention.



Readers' Forum

Dear Sri Mehrotra

Thank you for sending me copies of your publications describing the interesting features of traditional medicinal plants in our country. I found these publications very informative. I thank you for bringing out such interesting literature.

With regards,

S.K. Joshi

Director General, CSIR, New Delhi

We welcome your encouraging comments and eagerly look forward to your valued suggestions.

Editor

I am by profession an Ayurvedacharya. I have gone through your magazine and found it very informative both for myself and other members of family. Jeevaniya is good to keep in touch with traditional systems of medicine.

Ravi Nagpal, Jalandhar

I read Jeevaniya regularly. I have found its contents very interesting. I want to make a suggestion that is you increase the number of pictures of medicinal and nutritional substances. In my opinion it will be helpful to the reader in collecting the same.

J. Pappan, Kourkela

I am glad to go through your Greeshma-Varsha- Sharad '94 edition. I never expected such an exhaustive and informative magazine from U.P. I have a great appreciation for the regular columns of Jeevaniya as different areas are covered. Illustrations and pictures are really good.

B.R.S. Saxena, Lucknow

We always welcome the suggestions of our valuable readers. Our main concern is to make Jeevaniya a useful health magazine for every household.

Editor

Recently I have managed to get a copy of Jeevaniya 'Mental Health' issue and found it very beneficial in many aspects. Now I have deep desire to read all its issues. I have very much liked the columns like treasury of knowledge, health conundrum and prescriptions of Granny. It carries useful information regarding Ayurvedic knowledge. I am a practitioner of traditional system of medicine therefore I have found

it good even for research work also.

Dr. Kalpesh K. Soni, Vadodara

I am an Ayurvedic doctor and wish to read the experiences of great practitioners. I am glad to say that your magazine gives that information to me. I read this bimonthly magazine regularly.

Dr (Mrs.) Jyoti Goswami, Gujarat

I have seen a copy of 'Skin care special' issue of Jeevaniya. I have found it a very useful magazine. please accept my compliments for bringing out the excellent issue of this magazine.

Prof. Dr. Subhash Ranade, Pune

I have gone through Hemant Shishira and Vasant issue. Really I have received the most valuable and precious publication. I have found the editorial most exciting and heart touching. As I am an old subscriber of your magazine, I wish to read such an informative editorial in future as well.

Sushil Kumar Marjit, Mourshidabad

**Arya Vaidyan Rama Varier
Memorial Brihatrayee Ratna Award 1995
for
outstanding contribution to various branches of Ayurveda**
for details please contact :
The Secretary General, Brihatrayee Award Committee,
1382, Trichy Road, Coimbatore- 641018, Tamilnadu.
Phone: 215412, 216006. Fax: 0422-214953

In this Issue

General Articles

Deadly Plague	10
Lessons of Surat Tragedy	11
AIDS - The Reality	12
Ayurveda, Past Present & Future	14
Evolution of Doctor's Monopoly	64
The Family in Decline	65
The Girl Child	66
Fluorosis	67

Jeevaniya Child

Guest Editorials	19
Infant Feeding	20
Diet Regimen for Babies	22
Breast Feeding	24
Measles : A National Scourge	26
Diarrhoea in Children	28
Precautions in Teething	30
Why Babies Have Stomachache ?	31
Common Cold in Children	32
Rickets and its Treatment	33
Rickets: Homeopathic Treatment	34
Poliomyelitis	35
Intestinal Worms	36
Bed Wetting by Children	37
Mentally Disabled Child	39
Hydrocephalus	42
Behavioural Disorders in Children	43
Your Kid's Wear	44
Do you Really Love Your Child ?	45

Development of a Child	47
The Rights of the Child	49
Natural Way to Child Health	52

Medicinal Substances

Sweet Fag or Sedge	56
Sweet Makoy	57
Bitter Atees	58

Nutritional Substances

Sugarcane Juice	59
Beware of Junk Foods	62

Regular Columns

Shishira Regimen	8.
Spring Regimen	9
Health News	4
Research News	5
Abstracts	6
Biological Research	7
Interview	16
Prescriptions of Granny	54
LSPSS News	58
Nutritious Receptes	61
Prepare for Yourself	63
Astrology and Disease	68
Book Review	69
Jeevaniya Science Conundrum	70
Jeevaniya News : Science Communication	71
Maştram	72

Fish oil Reduces Obesity



Generally people believe that oil and fatty edibles are not good for health but recent studies done in this field have shown findings against this belief. Studies are based on the experiments done on rats by giving them fish oil for certain period. In rats, the fish oil not only successfully reduced the percentage of two types of fats but has also proved helpful in removing the obstruction in arteries. Now it has to be seen how these findings will help the researchers in doing research on human beings. The positive findings may prove useful in preventing heart attacks.

Deaths Due to Banable Drug

The deaths of 17 people in four months due to abuse of Proxyvon has compelled the state govt. of Mizoram to review the laws. Proxyvon is a strong painkiller which is banned in several western countries but is being openly sold in India. Although voluntary organisations working in the field of drug policy have put the drug on the banable drug list and are agitating on this issue it has not resulted in the desired legislation. Since 1990 nearly 70 people have died due to this drug and as it does not come under the provisions of Narcotic Drugs and Psychotropic Substances act, so the police is not able to prosecute the peddlars and abusers. The State Government is of the opinion that amending the Drugs and Cosmetics Act 1940 is the only way to combat this misuse.

Anti-diarrhoeal Vaccine Developed

An experimental vaccine against rotaviral diarrhoea has been developed by the US National Institute of Allergy and Infectious diseases (NIAID).

The severe rotaviral diarrhoea affects 18 million infants and children each year in developing countries, killing more than 8,70,000. The vaccine has been developed by genetic technology by using gene from human rotavirus and rotavirus of rhesus monkeys. This vaccine has been tested at 23 US centres on 1000 infants aged four to 26 weeks.

Fluoride Toothpaste May Carry Statutory Warning

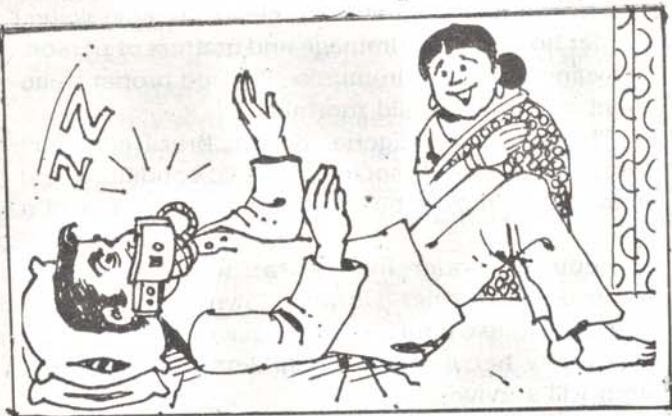


Fluoride toothpaste will carry the statutory warning that these toothpastes should not be used by the children under the age of 7 years. The decision has been taken by the ministry of Health and Family welfare. If it becomes an ordinance- the medicinal Substances and Cosmetics Rules of 1945 will be amended soon.

The medical experts have welcomed this multi-faceted ordinance by calling it the right step taken in the right direction. Dr.A.K.Sushila, the head of fluorosis control cell of AIIMS, Delhi has said that the Government should have passed this rule in 1992 when two amendments were done in Medicinal Substances and Cosmetics Rule.



Machine to Stop Snoring



A doctor of Switzerland has devised a machine to be fitted with jaws to stop snoring during sleep. He has succeeded in achieving this feat after working hard for 12 long years. According to Doctor Ernest Triffer the machine which is now available in the market has to be designed for the different jaws. The machine has two fold functions to perform, its upper part controls the occurrence of vibrations of the palate and the lower part will hold the lower jaw in such a way as to check the high pitch of snoring.

Snorers often complain of tiredness, annoyance and mental tension and occasionally suffer from headache during morning hours. Sometimes there are cases of forgetfulness also. The users of these machine will have to breathe from nose.

Hearing Implant

A new hearing implant has been developed at the Kasturaba Hospital in Manipal, Karnataka. Unlike the hearing aids, the implant converts the codes received as electric signals, which are then sent to the electrodes to stimulate the hearing nerve fibres. The codes that the speech processor receives are recognised by the brain as sounds. It will be inserted in the mastoid bone behind the human ear by surgical procedures. It is attached to the speech processor with a magnetic transmitter.

Artificial Musk

Chinese scientists working since 1976 on a project have successfully replaced musk by an artificial variety. Musk is an ingredient in 295 Chinese medicines and its annual consumption is 4000-5000 Kg per year. This research is important because musk deer is an endangered species in China and musk trade is banned worldwide. The completion of project preceded the trial over 1000 patients in seven hospitals.

Chinese Way of Treating Cancer

Fu Zheng- the Chinese way of treating cancer use Chinese herbs which are known to have soothing effect on trauma caused by radiotherapy. A team of scientists at Academy of Traditional Chinese Medicine in Beijing worked on complementary effects of Traditional Chinese medicines and modern therapy. A mixture of 10 Chinese herbs were given to patients getting radiotherapy and other modern treatments. It was found in 17 years study that 53% patients of over 5 years survived. This remedy not only reduced the side effects of chemotherapy but also strengthened the immune system.

Homeo Vaccine to Cure Addiction

In a remarkable scientific breakthrough, a homeo vaccine to cure addiction including alcohol, has been developed by a team of young homeo doctors.

The vaccine has been successfully tried on prisoners in Thiruvananthapuram, 75% of whom are addicted to alcohol and at least 20% to various drugs like ganja and brown sugar. The success rate claimed is 88.9%.

It is the first time in the history of homeopathy that a vaccine is being tried out, that too in combination. Homeo medicine is normally a single medicine. The vaccine developed after a research of 3 years is administered orally, in liquid.

According to the report the medicine was found effective on high-risk groups, which include children of prisoners, hypertensive executives and even social drinkers, who are likely to graduate to addiction.



Beware of Mental Tension and Use of Liquour



One should avoid the intake of liquor and mental tension during pregnancy as it affects the growth of foetus. These findings are based on the experiments done on rats by a Swedish psychologist when a pregnant mice was given about one litre of alcohol to drink, it proved fatal to foetus. Researchers believe that these findings may also be true for women.

Child Mortality Posing Serious Challenge

A study reveals that every eighth child in India dies before its fifth birthday accounting for nearly a third of such deaths in the developing world and posing a serious challenge to the nation's health planners.

With 126 deaths in a thousand a child under five is seven times more vulnerable than the one in the industrialised world. Although life-saving drugs, advances in medical research and massive health infrastructure have raised general life expectancy but child mortality remains high in India and other developing countries.

The study says that in the developed countries of the world over 97% of all children survive through the preschool years whereas in many poor countries, 20-25% of the children die before they reach

their fifth birthday, resulting in an estimated 14-15 million deaths annually.

In the developing countries, the lives of children aged 1-4 years, particularly in rural areas, are extremely precarious because of a wide range of factors, ranging from lower socio-economic status, culture, inadequate health measures, poor environment sanitation and imbalanced diet.

Environmental sanitation, clean drinking water, proper housing and drainage and matters of personal hygiene, nutrition, immunisation and proper treatment affects the child mortality.

The studies in Nigeria, Kenya, Brazil etc. reinforced the idea that socio-economic conditions and literacy also have a bearing on life expectancy of a child.

Reducing under five deaths would also help towards the further slowing down of population growth because families tend to have fewer children when they become more confident that their children will survive.

Know the Diseases of Old Age Before Birth



An American scientist has disclosed this at the World Molecular Biology Congress that one can know about the abnormalities and incurable diseases of middle and old age before birth. Dr. Thomas Kaserkey of Houston, Baylor Medical College claims to have done gene experiments on foetus to foretell the probable diseases that might happen to a person. According to him the weak backbone, Huntington disease and some mental disabilities are inherited by the foetus itself.

Chinese Wonder Plant to Curb Malaria

The Chinese plant *Artemisia annua*, which is now being cultivated in India, has in its ariel parts minute quantities of a chemical compound, artemisinin, which after extraction and processing can be used to treat the deadly *P. falciparum* cases of malaria.

According to V.P.Sharma of the Malaria Research Centre, there are 800,000 cases of *P.falciparum* being reported in the country. All tribal pockets of the country, have been reporting a large number of malarial deaths. When all other drugs fail to control malaria, artemisinin if injected into the blood stream brings relief.

Lucknow based Central Drug Research Institute has completed phase two trials on the artemisinin on 50 patient of malaria at the Rourkela Ispat Hospital. Trials indicate that artemisinin can be used to treat serious cases which do not respond to other drugs.

Artemisia annua seeds were imported from China and cultivated in Jammu by the regional laboratory of Central Institute of Medicinal and Aromatic Plants. Jamia Hamdard is also cultivating these plants.

V.P.Sharma warns that if taken orally, development of resistance towards this drug also may develop so it is better to directly inject it in blood stream.

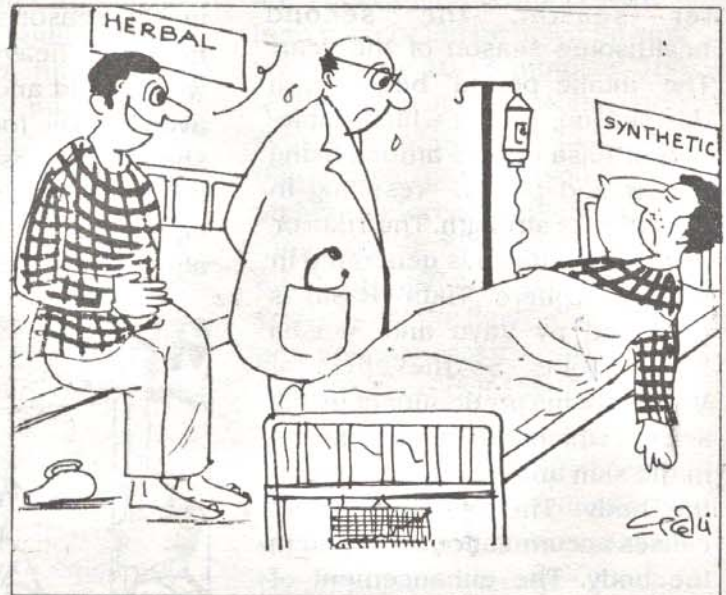
Kachnar Useful in Goitre



A new Ayurvedic medicine prepared by mixing Kachnar with some other herbs is a ray of hope for the patients of goitre. An Ayurvedic Physician Dr.

Madhukar Dholan claims to have obtained very encouraging results. He believes that by the regular use of this medicine one be cured without undergoing operation.

Side Effects of Modern Medicines



The traditional system of Indian Medicine provides health and the Modern Medicine results in many side effects, sometimes of long duration. This fact was disclosed by Vd. Braj Bihari Mishra and Dr.V.P.Trivedi in their research papers presented at Congress on Herbal & Oceanic medicines held at K.G.M.C. Lucknow. Physicians say that descriptions of herbal and oceanic drugs are found in both the traditional and modern medicine systems.

Dr.R.N.Seth from U.S.A said that the reason of growing cholesterol in Americans is due to irregular food habits. He said that herbal drugs have given good results in controlling cholesterol. Dr.S.C.Chaturvedi of N.B.R.I disclosed the use of tissue culture for the propogation of medicinal plants in his research paper.

Shishir Regimen

Ud. S. A. Khan, Lucknow

Shishir is the advanced winter season, the second healthsome season of the year. The 'intake period' begins with this season, during which depletion of Rasa occurs among living beings and plants, resulting in depletion of strength. The Tikta or bitter taste (Rasa) is generated in the atmosphere. Tikta (Rasa) is produced by Vayu and Akasha Mahabhootas. So the effect of Vayu remains predominant in this season which induces roughness in the skin and increases Vayu in the body. The seasonal effect causes accumulation of Kapha in the body. The enhancement of Vayu helps to prevent the accumulation of Kapha. Because if Vayu and Kapha both grow more then Pitta would naturally become too weak. This would weaken all the 13 fires inside the body which would result in severe illnesses and ultimately in death.

Due to excess of cold and cold winds temporary vitiation of Vayu and Kapha also occurs, so that various Vataj and Vatakaphaj diseases like coryza, headache, rheumatism, pneumonia, cough, Vatakaphaj fever etc. During this season also the moon remains powerful. Consequently, the sweet taste (Madhur Rasa) is enhanced, resulting in increase of Kapha, strength, semen and force.

During this season also the digestion remains stronger but not as strong as in Hemanta, because as the Shishira advances and accumulation of Kapha takes

place, the hunger is reduced. During this season also diet has to be nutritive, heavy, unctuous and warm. Cold and winds are to be avoided. The food and behaviour should be subsiders of Vata and Kapha, such as wines, meat, fish, egg, tea, coffee, musk, saffron almond etc. which should be free-



Sesame products are useful in Shishir

ly used. Head, hands, feet and chest should be covered with woollen clothes.

Vata and Kapha-subsiding things like ginger, asafoetida, black Pepper, *Piper longum*, garlic, basil, black sesame, cummin, fenugreek, nutmeg, wintercherry etc. should be used. Vata increasing substances like red chilli, leafy vegetables, lentil, millet, corn should not be taken consecutively. But fenugreek and atriplex without stems may be used freely. Among fruits pomagranate, guava, papaya almond, cashew, pista-

chio, walnut and among vegetables potato, tomato, brinjal, carrot, beetroot etc. are wholesome. Use wheat, rice, kidney-bean, ghee, milk, fat, butter and sweets of Khoya.

Regular exercise and massage with mustard oil are necessary. Sweet, salty and sour things are usable. The eating should be on time. Breakfast should be taken in the early morning, because the nights being long the food eaten in the night is digested completely by the morning. If one keeps the stomach empty for long then his digestive fire will be vitiated.

Bathing should neither be done with chilled water nor very hot water. Lukewarm water is good for bathing. If the water is too cold it would condense the Vayu and cause harm. If the water is too hot it would open up the pores of the body very wide and air and cold would enter subsequently and create problems. Wash with lukewarm water after massage and rub the body dry with a towel.

Food and behaviour must be according to the temperament. Persons of Vataj and Kaphaj temperament should use hot substances. Kaphaj-temperamented people should take more nutritious things. Pittaj-temperamented persons should not use a lot of hot things so that the season does not affect them adversely.

Regimen of Spring

Ud. S. A. Khan, Lucknow

By the time spring arrives, it already starts becoming warm. The winter would be completely gone. Spring season is the second season of the intake period. It lasts from 16 March to 15 May. Vayu remains predominant during this season, and due to this the atmosphere becomes charged with astringent taste.

The sunrays and winds extract water from the plant and animal bodies during the intake period. Therefore, they become weak. The Kapha accumulated in the body during Hemant and Shishir seasons becomes aggravated. The sunrays melt them. This Kapha returns to its origin i.e. stomach, resulting in diseases of Kapha-dyspepsia, inappetance, cough, tonsillitis, headache, coryza, phlegmatic fever etc. Roughness grows in the body and skin.

In order to prevent the above diseases it is necessary to remove the accumulated and aggravated Kapha from the stomach. It can be achieved by vomiting and snuffing. For inducing emesis, 2-3 emetic nuts should be powdered and taken with rock salt and honey in the morning on empty stomach. Give hot water to drink after that. Alternatively, prepare decoction of Neem leaves, Bakain leaves, Parval leaves and add powdered *Piper longum* and rock salt and honey and make the patient drink it. If vomiting does not occur, then again administer the same. Sub-

sequently two or three vomitings would follow. For snuffing, fine powder of Kayphal may be inhaled. Alternatively juice of bitter Tumbi may be infused in nostrils. These measures induce sneezes and phlegm is expelled as a fluid from nose. In order to remove the roughness of skin, oil massage, exercise, and hot water bath and subsequently light meal with minimum of unction should be taken.

In order to avoid the ill effects of the aggravated Kapha, powder of 6 Harads (Myrobalan) should be taken with equal honey on an empty stomach in the early morning and also in the evening after dinner and hot water drunk subsequently. Similarly, as appetiser and digester, drugs should also be taken regularly such as ginger, Piper longum, asafoetida, Ajowan, Narsar, lime etc.

In meals take old barley, wheat rice, lentil, Moong bottle gourd, brinjal, carrot, parval, bitter gourd, Rock salt, buttermilk, vinegar, Kanji, Aonla and cauliflowerer should be taken. Sweets prepared with jaggery and paste, heavy dishes sweet-meats of Khowa, fried things should be avoided. Meal times should be observed. Food must be warm and fresh, clean, tasty and light. One should eat less than one can. If you are Kapha-temperamented then sit erect for 10-15 minutes after meals. If you

are Vata or Pitta temperamented, then you should lie down on your left side for 10-15 minutes. This will help to digest the ingested. Possibility of dyspepsia is always there in the spring season. Get up an hour before sunrise and go for morning walk. Siesta is to be avoided. If you are a meat-eater then you may eat the flesh of wild birds and animals roasted without fat. Similarly you can take fish without lubrication.

To preclude dyspepsia take 2 tablets of Chitrakadi vati with hot water, twice daily. For coryza take Naradiya Laxmivilas Ras-2 tablets with betel juice and honey. Chandraprabha vati may be taken with honey or milk.

Pregnants, children and patients of stomach, intestinal ulcer, and heart should not undergo vomiting. They should be given kapha-subsidings medicines only. Vata-temperamented persons should not take bitter and astringent things consecutively for long. Kapha-temperamented persons should not take excess of sweets, sours and heavy diets, otherwise Kapha, which is already aggravated shall be increased and create severe problems.

Deadly Plague

Ud. Ramakant Mani, Kanpur

Plague is an epidemic. It is a great mass killer. It is propagated by rats. Lack of sanitation around human settlements, dirt, garbage, rubbish, stinking urine and stools lying uncleaned and oppressive heat during the day and chilly nights help its propagation.

The examination of stools and urine of patients has revealed the presence of bacteria *Cocci bacillus*, so some believe it is propagated by the said bacteria.

Symptoms

After the entrance of the toxin in the body and before the onset of the disease the person feels tired, headache, laziness, inappetance, shivering in hands and feet, slight pain in sides and rumps. Thereafter suddenly fever shows up and swelling appear at many places over the body that look like wounds. Glands appear and the patient feels intense burning, his tongue becomes thick and red, sides ache, pulse become too weak, intense thirst, sleeplessness, irrelevant speech, fast breathing, red urine, black faeces, nausea, burning in heart, spleen and weakness. The patient is not able to get up and squirms on the bed.

Types

Plague is classified in to two types, Bubonic plague, wherein burning glands appear and pneumonic plague which affects

inhalation and exhalation. The bubonic plague is more aggressive of the two and it was this plague which created havoc in Surat recently.

Precautions

Keep the lavatories, drains, sewers always clean. It is necessary and helpful to have the house whitewashed in the advent of plague. Fumigate the house round the clock by burning incense etc. to purify the air. Insecticides should be sprayed into the sewers & drains.

Rats are the carriers of the disease. The fleas attack the rats first, The rats then enter the houses and die. When rats start dying in numbers the disease spreads like the jungle fire. In such conditions beware of rats. Dip the dead rats in carbolic acid lotion and dig them deep far away from settlements. Mango leaves should be burnt in the house to purify the air. Patient's beddings and garments should be burnt away. Avoid contact of patients of plague. Sour things and salt destroys the poison of plague. So use of lemon is useful. pure mustard oil should be massaged.

In case of plague following home remedies are useful:

Boil one litre water with 20 gm big cardamom till half remains. Thereafter burn the bark of Peepal and extinguish it in above water. Filter and store in an earthen vessel. This water is to be given to

drink whenever the patient is thirsty.

Give one tablet Sanjivani Vati with water twice a day.

Prepare Nimbadi Vati as follows:

Take 12 gm dry leaves of Neem, black pepper 10 gm, Atees (Ativisha) 10 gm, camphor 10 gm, powder all in a pestle add a little of water mix and prepare pea-sized pills. Give one pill at an interval of one hour. This will cure the fever of plague.

When the gland is coming up apply honey, lime and tobacco, this will subside the gland or burst it.

If the patient has stomachache, then massage the belly mildly with ghee in which rock salt is dissolved.

If the gland has burst after maturing then apply wax cooked in mustard oil mixed with vermilion.

Read
Jeevaniya
for
Healthy Life

The Lessons of Surat Tragedy

A tragedy like the plague epidemic cannot be evaluated merely in economic terms, but if efforts are nevertheless made to estimate the economic cost, this will surely run into billion of rupees. It is equally true that this entire economic loss - what is even more, important a lot of human distress - could have been avoided by timely sanitation work which would not have cost more than a few million rupees.

So due to our unwillingness to spend millions we've suffered losses running into billions, apart from the great distress caused by illness and death and the widespread tensions caused by the epidemic scare.

The Surat tragedy should at last teach us (hopefully) that even in purely economic terms a single big epidemic can cause more economic loss than the accumulated savings from budgetary cuts in essential sanitation expenditure spread over dozens of years.

Apart from lack of adequate budgetary support, there are two other important reasons why dirt and garbage have become such a serious problem in many Indian cities. Both of these reasons are rooted in the paradox of continuing poverty on the one hand and growing wasteful consumerism for a relatively small section on the other hand.

Some of the worst dirt and garbage exists in and around the slum areas. But the influential sections of our society turn a blind eye to this uncomfortable reality till it breaks out in the form of epidemics. The most basic

needs of slum areas are ignored. In most cases people are quite willing to help in efforts to make the slums cleaner, but as long as the area remains waterlogged, there is no drainage, no toilets and even no arrangement for garbage collection, slum-dwellers by themselves cannot do much.

The other problem arising from wasteful consumption patterns has led to a change in the composition of garbage. Now there is a much bigger share of wastes which are not biodegradable. We've not learnt the costly lessons from the experience of western countries and seem to be bent on copying even the most wasteful aspects of their life-style. In this context it is extremely shocking to see that giant companies with nationwide sales are now selling their soft drinks in disposable plastic glasses and bottles (or in other forms of packaging such as tetrapacks which are also harmful). These trends have led to an entirely avoidable increase in those types of garbage which are the most difficult to dispose.

The annual municipal waste generation was estimated a few years back at 762 kgs. per capita in the USA, 630kgs. in Canada and 585 kgs in Singapore. A big share of this consisted of avoidable packaging materials and disposables. While such wastage should be condemned everywhere, these rich countries at least have the resources to manage their garbage. We don't, and yet we want to imitate thoughtlessly.

The recent epidemic was not just a natural disaster. It was also a reminder, admittedly a cruel one, that the highly selfish and 'benefits for a few' trends of our economy are not even beneficial for the privileged few whose trends they seek to promote. Public health in particular cannot be promoted without a much more equal distribution of income and wealth on the one hand, and avoidance of wasteful consumerism on the other.

Tobacco: Invitation to diseases

People consuming tobacco are 70% more vulnerable to heart attack, hypertension, cancer, ulcer, sudden death and various respiratory diseases. These facts were revealed in a survey sponsored by Sandoz Research Foundation, Australia and International Society and Federation of Cardiology, Switzerland.

Nicotine in tobacco and carbon monoxide generated by its burning, adversely affect coronary blood vessels, consequently bringing down fresh blood supply to the heart thus causing heart attack. According to one estimate, some 50% of the Indian population use tobacco in various forms where 15 lakh farmers cultivate it with the help of 50 lakh labourers and nearly 2 crore people earn their livelihood from it in various ways.

AIDS : The Reality

Pt. K. G. Gore, Lucknow

Acquired Immuno deficiency Syndrome or AIDS is a fatal disease caused by a virus. It is called a syndrome because it may be identified by symptoms only. The virus is called Human Immuno-Deficiency Virus or in short HIV. Viruses are genetic material enclosed in shells of proteins under favourable conditions start producing their prototypes. Probably the AIDS virus remained inactive in the blood circulation of the green monkeys of Central Africa for several centuries. Perhaps sometimes during the year 1970 the structure of the AIDS virus underwent some change and unfortunately the virus jumped from animal to the man. Initially, five persons were found sick of this disease in Los Angeles in the year 1981. Within the span of six to seven years the disease spread in to the entire world, and at present it is estimated that there are 1.5-2 million people infected with AIDS.

In India, in the year 1987 the first patient of AIDS was identified in Bombay. From then on, till March, 1994 about 713 active patients have been identified from all over India. According to WHO, the spread of AIDS is more likely in the developing countries and if proper measures are not taken to check its spread then in such countries 80 per cent of human beings would die of AIDS in near future. Such a horrendous and fast infectionable disease needs to be fought at all fronts, otherwise human existence itself over the earth might be endangered.

The Immune System

About 100 trillion cells exist in the human body. Many of these combine to form the blood. There are about one trillion white cells in the blood which protect the human body from the external bacteria and viruses. The white cells are produced in the bone marrow. These are of two main types, phagocytes and lymphocytes. The function of phagocytes is to get hold of the external bacteria and eat them. Among these Macrophages are most important who eat away the pathogen. Lymphocytes T and B cells. All these cells jointly recognise any bacteria, virus or any foreign body, alert each other against them, destroy them and develop immunity against them, so that their future attack as and when it might occur, could also be successfully fought.

Whenever any virus enters the body through any medium the Macrophages existing in the body try to capture and eat them and they also alert the T-cells. The T-cells at once identify the attacking foreign body i.e. virus and inspire the production of the killer T-cells to destroy the external enemy. The killer T-cells also destroy all such cells which have been attacked by the external virus. Alongwith the killer T-cells, B-cells are also produced in the spleen and marrow which generate the killer chemical weapon i.e. the antibodies to destroy the identified viruses. These antibod-

ies become attached to the related viruses and make them powerless and inactive, or get them destroyed by the killer T-cells. After vanquishing the external viruses, production of controller T-cells also occurs which altogether stops this warfare.

During this entire action such T and B cells are also produced which retain the memory of the structure of the external viruses and their annihilation. These remain in the blood and marrow system for ever, for use in case of any future attack of the same virus. This is the immune system or the internal process by which the attack of any external virus is fought on a war-footing and even after the victory, prophylactic plan is also kept ready for use in future.

However the AIDS virus makes mincemeat of this natural scheme of resistance because whenever they enter into the blood they attack the T-cells which inspire the production of killer T-cells. AIDS viruses enter the T-cells and reside in them. Since these T-cells are an integral part of the blood, so the question of any action against these does not arise. Virus thrives inside the T-cells and when they burst open them then they enter into other T-cells. Thus those T-cells which would have inspired the production of the killer T-cells to kill the viruses themselves become full of viruses and thus no action against the AIDS virus takes place. Moreover, these cells in-

ected with AIDS virus are not capable of remaining alert against any other bacteria or viruses. And thus the immune system of patient of AIDS is unable to fight against other diseases as well. So the patient of AIDS gets attacked by various other diseases as well and is propelled fast towards the death.

By now the routes of infection of AIDS have been found out but the medicine capable of destroying the viruses is still not available. However it is now known that the virus gets destroyed by being exposed to the open atmosphere.

The Aids virus gets collected in the blood, semen and vaginal discharges. These are negligible in sweat, sputum and urine and minimum in the breast milk. The disease gets transmitted by four routes:

1. Unsafe coitus
2. Needles of infection etc.
3. Transfusion of infected blood
4. Infection through mother during pregnancy or delivery.

Symptoms

The virus may remain dormant for several years after the infection but as soon as reproduction of virus begins, it weakens the immunity and consequently contraction of other diseases is facilitated. So the AIDS patient falls prey to a disease repeatedly or to various serious diseases. Different symptoms may occur in different patients. The symptoms may be divided into four stages.

Pre-symptoms of AIDS

When sufficient number of white cells are infected then the

patient may be identified by following symptoms :

- Prominent glands in the neck, arm pits & waist-thigh joints.
- Incessant cold, coryza, cough, fever, headache and diarrhoea.
- Loss of body weight without any known cause.
- Weakness
- Rashes and blotches on the skin that are painful and itching.
- Excess of sweating, especially during nights.
- Infectious diseases of genitals that refuse to be cured or relapse.

Symptoms of AIDS

The following salient and general symptoms are found in persons fully affected by AIDS :

Salient

- Sudden loss of more than 10% weight of the body
- Diarrhoea persisting for over one month.
- Fever since over one month.

General

- Cough since more than one month
- Scabies
- Redness of the skin
- Mouth-sore
- Swelling in the glands of neck, sides and joints
- Tumour
- Hoarseness or throat trouble.

Apart from these, other diseases like tuberculosis, pneumonia etc. also attack the patient whose immunity is annihilated.

As the above symptoms are found in other diseases as well, the occurrence of AIDS can be identified for certain through specialised tests only. There is no medicine for AIDS-one can safely avoid AIDS by meticulously follow-

ing the following rules:

- Do not have sexual intercourse out of wedlock.
- If any one of the husband or wife is infected then do not indulge in sexual intercourse or use condom.
- Prostitution should be completely banned, pending which
- Do not indulge in unnatural intercourse.
- If there is any disease or wound in genital organs then do not have sexual intercourse.

Needles of Injection etc.

- Use the needles only after disinfecting them.
- Use of a disposable, disinfected needle is recommended each time.
- For medications to have ears punctured, acupuncture or tattooing.
- Do not take intoxicants through needles.

Blood Transfusion

- Before the transfusion of blood, have it tested for the AIDS.
- AIDS test must be done before organ transplantation, tissue transplantation etc.
- If a lady is infected with AIDS then she should not conceive. She should use contraceptives for having sex.

The patient of AIDS is not to be hated but he is to be sympathized. Only his sexual contact and transfusion of his blood are harmful. If he is suffering from diarrhoea, fever, headache, scabies etc. then he should be given mild medicines only. The AIDS patient is already under severe mental pressure and physical pain so it is the duty of those attending on him to create such an atmosphere so that he may as far as possible, be happy and fight the disease as best as possible.