Star health

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Dengue alert: Precaution and prevention

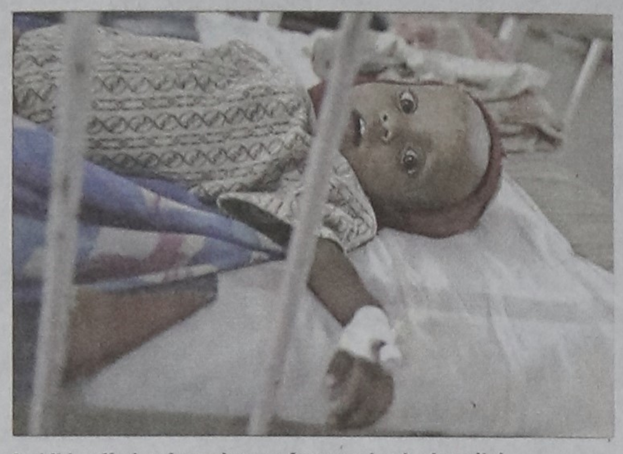
MD RAJIB HOSSAIN

The rainy season provides a fertile environment for Aedes mosquito to grow faster and transmit the dengue virus more rapidly. The incidence of dengue fever has reportedly increased in the country alarmingly. But simple protective measures and following proper guideline can reduce the occurrence, mortality and morbidity caused by the disease.

Dengue (pronounced dengay) fever usually starts suddenly with a high fever, rash, severe headache, pain behind the eyes, muscle and joint. The severity of the joint pain has given dengue the name "breakbone fever." Nausea, vomiting, and loss of appetite are common. The rash typically begins on the arms or legs three to four days after the beginning of the fever. The peculiar nature of the fever is that it lasts up to 7 days and then a afebrile period of 2-3 days stays when patients feel better and after that the temperature rises again. Complete recovery may take in a variable period from 15 days to one month.

Dengue fever has several categories like dengue undifferentiated fever (similar to viral fever), classical dengue fever, and dengue haemorrhagic fever with or without shock.

Most dengue infections result in relatively mild illness, but some can progress to dengue hemorrhagic fever. With dengue hemorrhagic fever, the blood vessels start to leak and cause bleeding from the nose, mouth, and gums. Bruising can be a sign of bleeding inside the body. Without prompt treatment, the blood vessels can collapse, causing shock (dengue shock syndrome). Dengue hemorrhagic fever is fatal in about 5 percent of cases, mostly among children and young adults.



A child suffering from dengue fever rests at a hospital

Dengue fever is diagnosed by clinical symptoms and specific blood tests (PCV, platelet count, white blood cell count, isolation of virus and serological tests). Blood tests is usually advised after 3 days when it becomes positive.

As dengue is caused by a virus, there is no specific medicine or antibiotic to treat it. The mainstay of treatment is supportive therapy. Increased oral fluid intake is recommended to prevent dehydration. Supplementation with intravenous fluids may be necessary to prevent dehydration and significant concentration of the blood if the patient is unable to maintain oral intake. A platelet transfusion is indicated in cases if the platelet level drops significantly (below 10,000) or if there are significant bleeding.

Prof. Dr. Khaja Nazimuddin, professor of medicine, BIRDEM advised to take paracetamol only for fever and pain. He warned not to take any aspirin and or other non-steroidal anti-inflammatory drugs (NSAID) or antibiotic during high-grade fever, because intake of these drugs can aggravate the condition of the patient.

Patients with symptoms of high-grade fever, vomiting, abdominal pain, rashes on body and headache are strongly recommended to consult physicians before taking any drug as self-medication may result in fatal outcome of the patient. Hospital care is necessary for all patients with dengue haemorrhagic fever.

The prevention of dengue requires control or eradication of the mosquitoes carrying the virus that causes dengue. We should empty stagnant water from old tires, trash cans, and flower pots and from air conditioner where the mosquito breeds. Government should step up their efforts to reduce the number of mosquitoes to keep the disease in check.

For personal protection, use mosquito net, repellant sprays that contain DEET. The *Aedes aegypti* mosquito bites more during daytime i.e. between sunrise and sunset. So be careful more in the day.

CONTACT LENSES

What to know before you buy

DR TAREQ SALAHUDDIN

Here are some pointers on safe disinfection, storage and handling of contact lenses, followed by a rundown of contact lens types.

Avoiding eye infections

Wearing contact lenses increases your risk of corneal infection. Some of the added risk is unavoidable: All types of contact lenses reduce the amount of oxygen that reaches your cornea the clear tissue that lies over the pupil and iris and less oxygen can promote infection.

This reduction in corneal oxygen makes proper cleaning and disinfection all the more important. Here are some tips:

- Use multipurpose contact lens solutions with caution.
- Choose daily-wear contacts, and take them out before you go to sleep. Infections are more common with extended-wear contacts, worn continuously, than with daily-wear contacts.
- Wash, rinse and dry your hands thoroughly before handling your contacts.
- Follow your eye-care professional's instructions for taking care of your lenses. Make sure you use lens-care products formulated for the type of lenses you wear.
- Replace your contact lenses as recommended. If one or both lenses bother you before you are due to replace them, get them checked or try a new set if you have a supply.

Types of contact lenses and their comparison

Contact lenses are made of many different types of plastic, but in general, they fall into two main groups: soft contact lenses and gas-permeable contact lenses.

Soft contact lenses are thin, gel-like lenses conform to the shape of your eye. They are more flexible than gas-permeable contact lenses, so they are more comfortable and easier to get used to.

Soft contact lenses are flexible lenses, more comfortable, with extended-wear and disposable options available. They have shorter adjustment period and stay in place better, even with vigorous physical activity. Disadvantages include less durability, requirement of more frequent replacement. They are not as effective in correcting some vision problems, such as high degrees of astigmatism.

Gas-permeable lenses are more durable, can correct optimal vision problems for many conditions, need less frequent replacement, have greater oxygen permeability. They are better for eye health. On the other hand these lenses are less comfortable initially and require adjustment period. Readjustment may be necessary any time you stop wearing them for an extended period. They may slip off the center of your eye more easily and may lead to discomfort and blurred vision.

Getting the right fit

If you decide you want contact lenses, have a thorough eye examination and fitting by an experienced professional. Follow-up exams are important to monitor any changes to your vision and to update your prescription. If you are a regular contact lens wearer, see your doctor annually for an eye exam and a contact lens evaluation more often if you have any problems.

Not bad or mad, but sick

DR SATPARKASH

Like all diseases, addiction (to alcohol or drugs) has certain characteristics. Details may vary from person to person, but the pattern and symptoms are predictable. It has a devastating effect on all areas of the affected person – physical, mental, social, financial, emotional and spiritual. His ethical or value system is greatly eroded — he easily lies, cheats, manipulates or steals to maintain his habit. It adversely affects his relationships with family, colleagues and friends.

Modern research has identified a genetic factor in the disease and scientists have isolated certain chemicals or neurotransmitters in the brain, which are directly related. Parents usually blame their child's bad company. Alcoholics themselves give a variety of excuses, such as too much stress at work or too little love and understanding at home.

Addiction is a progressive disease. It starts with an occasional glass of beer, gradually increases quantities to achieve the same high, since the body develops tolerance towards the drink or drug.

Alcoholism is a family disease too. It affects the entire family, especially the wife, parents and children. They are victims of addiction who do not take drinks or drugs. They experience similar negative feelings as the addict-fear, anger, hurt, confusion, guilt, shame, hope followed by despair. Even their behavioural patterns become similar. Just as the addict tries various control strategies to reduce or stop drinking, the family members also begin to lie, manipulate and deceive in their vain attempts to control or cover up his habit. The family members are in desperate need of proper help, support and understanding.

Alcoholism is treatable. Like diabetes, a regular treatment schedule is required to keep the disease in check. An abstinent alcoholic cannot take a drink and hopes to continue a controlled pattern. He will inevitably return to obsessive and compulsive drinking. Total abstinence is the only way.

It is a highly relapse–prone disease. A rigorous maintenance schedule is essential in order to stay sober.

The alcoholic or drug addict may appear to be a bad or mad person. But the fact is that s/he is sick and needs help.

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EXPERIENCE FROM NEPAL

Ensuring a worm-free childhood

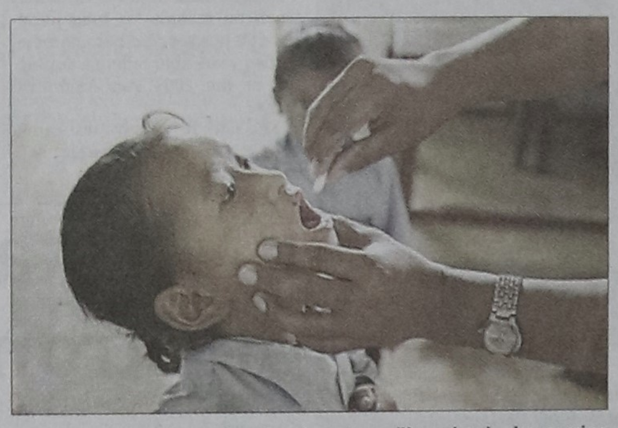
STAR HEALTH DESK

At a crowded health clinic in Kathmandu, parents bring their children to receive albendazole for deworming and a vitamin A supplement to boost nutrition. Nepal's pre-school worm control programme takes place every six months and is delivered by nearly 50,000 female village volunteers.

A Nepali study team aims to test the drug's ongoing effectiveness among local school-age children. They set up an operations base in the Dhading district. Combing through school registers in three or four schools a day, the team identifies two groups of children in each school.

Children participating in the study are given parent consent forms to fill out and return. One test group involves children between ages five and eight, and the other between ages 11 and 14. The younger children had regular doses of albendazole throughout their pre-school years. The older children, who were already in school when the pre-school control programme began in 1999, have never been treated.

Every child - regardless of his or her age group - receives a stool container labeled with a serial number. Study team members clearly explain how to fill the container with a stool sample and bring it back to school the next morning. The following day, the team returns to the school and lab technicians carefully check that each child has provided a stool sample. Each child then receives one tablet of albendazole to take with water. The team then drives back to its makeshift laboratory to prepare and examine the stool samples. During the first 10 days of fieldwork, more than 2000 samples are analysed.



A child is taking Albendazole at a "In-school deworming programme" in Nepal.

Lab technicians work late into the night to examine all of the stool samples within the same day. Next to each child's identity number, the number of hookworm, whipworm and roundworm eggs found in his or her sample are recorded.

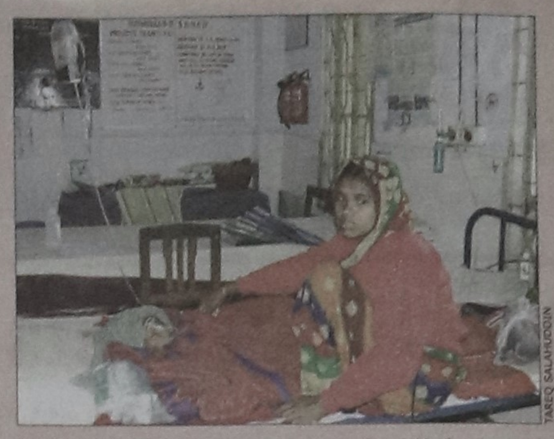
After three weeks (the ideal interval to assess the curative effect of the drug and avoid positive samples due to re-infection) the team returns to the schools. Children identified as infected during the first round are re-tested in exactly the same way as before and then the difference in the number of eggs between the two rounds is compared.

Data analysis done in Nepal and by WHO show that the albendazole is still effective despite years of intensive use.

The result is good news for child health. Albendazole is one of only four available WHO-recommended drugs for controlling intestinal worms, and one of the easier ones to administer. In-school deworming programmes that seamlessly start when pre-school programmes end can help ensure a worm-free childhood.

This programme can be replicated in the schools of developing countries.

Source: WHO



A child suffering from severe pneumonia and being treated at Mitford Hospital, Dhaka, Bangladesh is seen in the photo. A recent study published in The Lancet shows that allowing local health facilities, not hospitals, to treat child pneumonia can improve care in developing countries.

TAREQ SALAHUDDIN

Care at first-level facilities for children with severe pneumonia

Allowing children with severe pneumonia to be treated at local, first-level facilities instead of hospitals means much higher proportions of children are treated correctly. These are the conclusions of authors of an article published early online in a recent edition of The Lancet.

The Intergrated Management of Childhood Illness (IMCI) guidelines, developed in the mid-1990s, recommend that children with severe pneumonia attend hospital. However, in many poorer settings, children who are referred do not attend hospital and do not receive adequate care. Dr Enayet Karim Chowdhury and Dr Shams El Arifeen, International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), and colleagues studied the safety and effectiveness of modified guidelines that allowed children to be treated locally in first-level facilities, with referral to hospital only for the most severe cases.

The study used 10 first-level health facilities in Matlab, rural Bangladesh, that had been using the previous IMCI guidelines, and assessed children from two cohorts. The first was 261 children who attended the facilities between May 2003 and April 2004, before implementation of the modified guidelines. Of these, 94% were referred to hospital, and only 36% ended up receiving the appropriate care, while 1·1% (three children) died.

The second cohort contained 1271 children treated at the facilities post-implementation of the modified guidelines. Of these, only 8% were referred to hospital, and 90% received appropriate care, while the mortality was 0·6% (seven deaths).

The authors conclude: "Local adaptation of the IMCI guidelines, with appropriate training and supervision, could allow safe and effective management of severe pneumonia, especially if compliance with referral is difficult because of geographic, financial, or cultural barriers."

In an accompanying Comment, Dr Igor Rudan, Croatian Centre for Global Health, University of Split Medical School, Croatia, and Dr Harry Campbell, University of Edinburgh Medical School, UK, say: "We welcome a substantial increase in investment in controlled trials in developing countries to address crucial gaps in information—such as correct case management of severe pneumonia in children with HIV infection—and in health-policy and systems research to identify effective ways to improve and scale up implementation of interventions against pneumonia."

Source: The Lancet

Journal and web site on geriatric cardiology launched

In order to curb the increasing incidence of geriatric diseases, Bangladesh Society of Geriatric Cardiology and Society of Cardiovascular Ultrasound, Bangladesh Chapter have taken a joint initiative for easy access to information regarding geriatric problems by launching a journal entitled "Cardiovascular Journal" and a web site, says a press release.

The launching ceremony was held recently in a local hotel in the city. Prof. Abdullah Al Shafi Mojumder, Editor of the journal presided over the programme.

National Prof. Brig. (Rtd) Abdul Malik was present as the chief guest and launched the new web site of geriatric cardiology (www.sgcbd.org). The site will provide all the information and articles regarding various cardiac ailments like chest pain (angina), hypertension, heart attack, heart block etc.

Prof. Abu Zafar, Prof. M. A. Zaman, Prof. Sirajul Haq, Prof. Hasina Banu, Prof. Shah Kermat Ali and other renowned cardiologists and cardiac surgeons participated this programme and shared their views.

MEDICAL MIRACLE

Baby pronounced dead lives after hours in cooler

REUTERS, *Jerusalem*

A stillborn Israeli baby who was pronounced dead by doctors "came back to life" recently after spending hours in a hospital refrigerator.

The baby, weighing only 600 grams at birth, spent at least five hours inside one of the hospital's refrigerated storage units, before her parents, who had taken her to be buried, began noticing some movement.

"We unwrapped her and felt she was moving. We didn't believe it at first. Then she began holding my mother's hand, and then we saw her open her mouth," said 26-year-old Faiza Magdoub, the baby's mother.

The baby was pronounced dead several hours earlier, after doctors at Western Galilee hospital in northern Israel were forced to abort her mother's pregnancy because of internal bleeding. Magdoub was 23 weeks into her pregnancy.

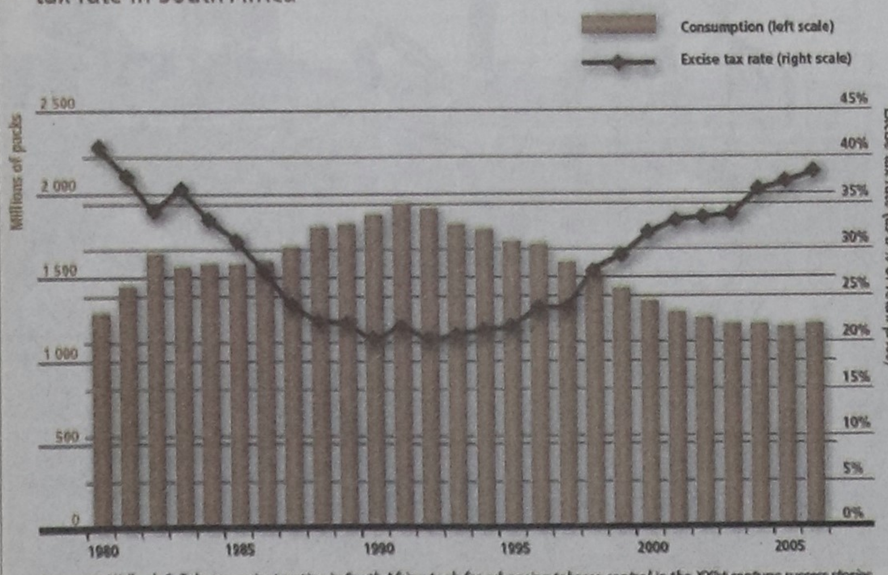
"We don't know how to explain this, so when we don't know how to explain things in the medical world we call it a miracle, and this is probably what happened," hospital deputy director Moshe Daniel said.

The baby was then taken to the hospital's neonatal intensive care unit for further treatment, but doctors were not sure how long she will live.

Motti Ravid, a professor of internal medicine, told Israel's Channel 10 that the low temperature inside the cooler had slowed down the baby's metabolism and likely helped her survive.

TOBACCO TAXES REDUCE CONSUMPTION

Relationship between cigarette consumption and excise tax rate in South Africa



Source: van Walbeek C. *Tobacco excise taxation in South Africa: tools for advancing tobacco control in the XXIst century: success stories and lessons learned*. Geneva, World Health Organization, 2003. Additional information obtained from personal communication with C. van Walbeek. (http://www.who.int/tobacco/training/success_stories/en/best_practices_south_africa_taxation.pdf, accessed 6 December 2007).