



Introducing revolutionary TB test for rapid diagnosis

DR MD RAJIB HOSSAIN

World Health Organisation (WHO) has endorsed a novel test for rapid diagnosis of Tuberculosis (TB) very recently. The new test called NAAT (Nucleic Acid Amplification Test) is helpful for early diagnosis of TB, particularly revolutionary role in much quicker diagnosis of multidrug-resistant TB (MDR-TB) and TB complicated by HIV infection, which are more difficult to diagnose. Experts expressed their hope that the test would play a crucial role in reducing burden of TB for a country like Bangladesh who is listed as 6th highest burden TB country.

WHO has approved the test after 18 months of rigorous assessment of its field effectiveness and now calling policymaker to incorporate the NAAT test into national plans for TB and MDR-TB care and control.



The new test — developed over five years by a public-private partnership between Foundation for Innovative and New Diagnostics (FIND), a California-based company called Cepheid Inc., and the University of Medicine and Dentistry of New Jersey in the US — uses polymerase-chain-reaction (PCR) technology to detect the DNA of the

TB bacterium.

The current sputum culture test used for diagnosis of MDR-TB requires sophisticated laboratories and skilled technicians and takes longer period up to three months, by which time the patient may have infected more and, in many cases, died. In contrast, the new test can diagnose in just 100

minutes. The treatment of patients can be provided instantly at the same setting of testing. The test is fully automated, easy to handle and less chance of error by technician. It can be performed without a conventional laboratory setting.

Moreover, the accuracy of the test is much higher than conventional tests. Although the new test has numerous advantages the affordability is a key concern in a developing countries like Bangladesh.

Co-developer FIND has announced that it has negotiated with the manufacturer, Cepheid, a 75 percent reduction in the price for countries most affected by TB. However, many experts said that the price is comparatively less, as it does not include the cost to set up and staff a lab that conducts the conventional test.

Prof Dr Iqbal Hasan Mahmmod, a Respiratory Medicine Specialist said, "The new test will be very important for our country and other developing countries fighting TB epidemics. Rather than role in diagnosis of ordinary TB, it will have great use in diagnosis of drug susceptibility for MDR-TB more accurately and swiftly. In order to make successful implementation, the financial barriers should be eliminated for poor people."

Along with the conventional sputum diagnosis for ordinary TB, it should be implemented for early diagnosis of drug resistant TB. South Africa, India, Uganda, and several other countries plan to roll out the test immediately.

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Why so many people choose outside for treatment

There is a perception that every year a huge number of Bangladeshis visit foreign healthcare centres to receive healthcare services. Theoretically, any services including healthcare should be traded freely for maximising consumer welfare.

However, the outflow of patients is a disturbing tendency for Bangladesh several reasons, among which the following are important:

- 1. Standards/Absence:**
 - Proper medical reception as well Emergency
 - Post operative doctors' attitude and knowledge
 - A few high tech device
- 2. Lack of confidence in radiology/imaging and laboratory**
 - Majority are dedicated, qualified and high machineries are up to the mark
- 3. Poor accessibility**
 - Medical attention when you need it
- 4. Lack of integrated facilities and services**
 - Outpatient, diagnostics, inpatient all in one facility

Source: 'Why Patients are going Abroad' — a research carried out by the writer

Water for health: Amazing advantages of drinking

DR MIR ATIQRU RAHMAN

Water is life. As we get it easily, we take it for granted. But this is the most essential element, next to the air for our survival. We lose water every minute through sweating, breathing, urinating and with bowel movements. For our body to function properly, we must replace the water we lose by consuming beverages and foods that contain water.

For sedentary adults, drinking approximately two to two and a half liters of water a day, might be sufficient. For hardworking people, the amount of intake should be much more. Here are some notable health benefits of drinking adequate water.

• Drinking water helps us lose weight because it flushes down the by-products of fat breakdown. Drinking water reduces hunger; it is an effective appetite suppressant.

• Helps to relieve headache and back pains due to dehydration.

• Water helps to replenish skin tissues, moisturizes skin, increase skin elasticity and helps look younger.

• Our brain is mostly made up of water, thus drinking water helps us think better, be more alert and more concentrate.



• Drinking water regulates our body temperature.

• Drinking water raises our metabolism because it helps in digestion.

• Proper hydration helps keep our joints and muscles lubricated, so we will less likely get cramps and sprains.

• Drinking plenty of water helps fight against flu and other ailments like kidney stones and heart attack. Water added with lemon is used for ailments like respiratory disease, intestinal problems, rheumatic arthritis etc. One of the major benefits of drinking water can improve our immune system.

• Drinking a healthy amount of water also may reduce the risks of bladder cancer and colon cancer.

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Paget's disease of nipple — a form of breast cancer

DR TASMA TAHMID

Paget's disease of nipple is a special type of breast cancer, which is not very common. However, it is the one which can be misdiagnosed easily. It is frequently thought to be a skin inflammation or infection, leading to unfortunate delays in detection and care.

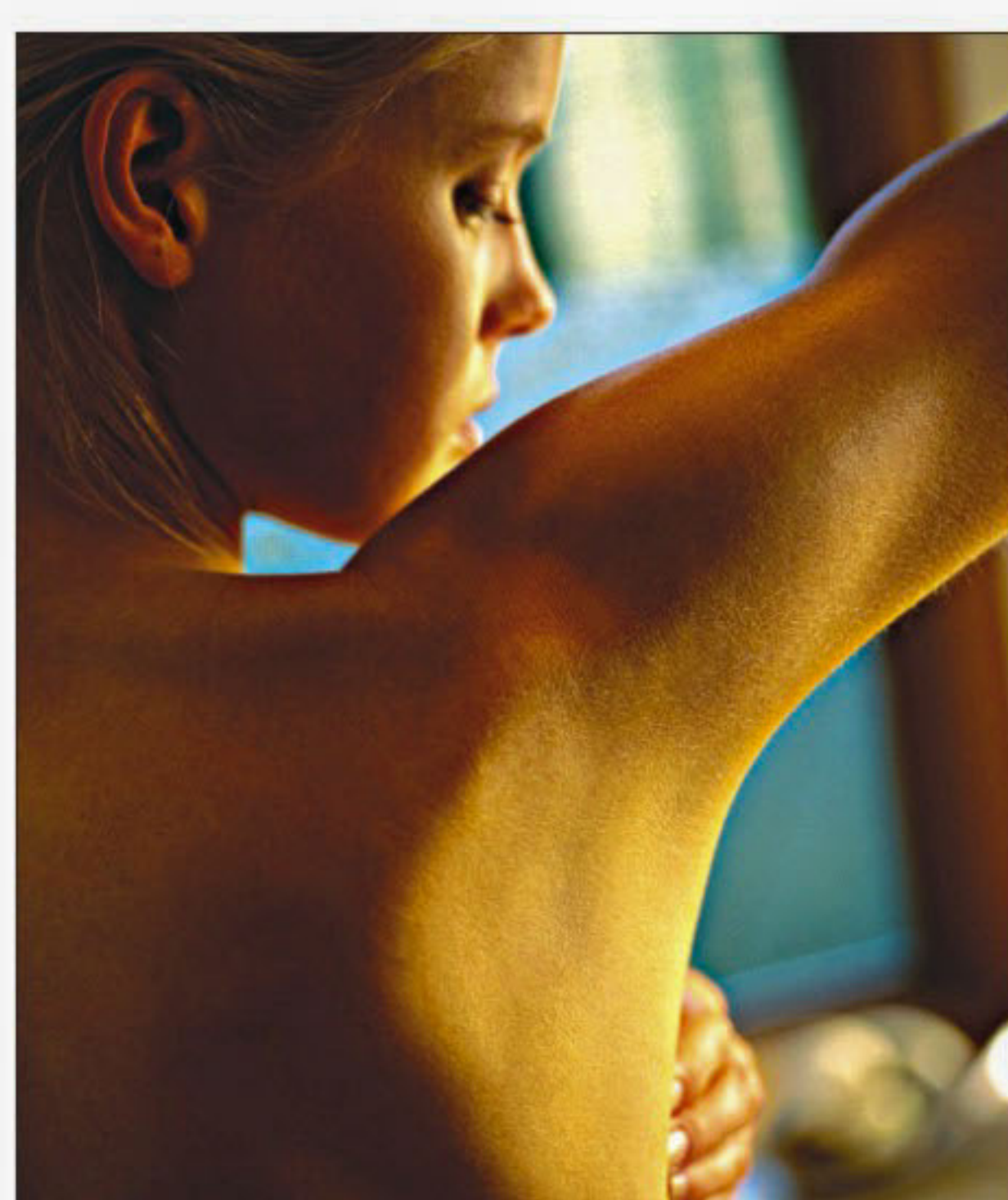
I have seen few patients in Dhaka who had their treatment as nipple eczema for certain length of time and eventually searched for help, as the treatment for eczema did not help at all, instead got worse. After doing punch biopsy of nipple, diagnosis was confirmed as Paget's disease of nipple with underlying invasive breast cancer and had mastectomy (removal of whole breast!)

What is it?

It is an eczema-like change in the skin of the nipple, and 9 out of 10 women who have it have an underlying breast cancer. The underlying breast cancer may be an invasive breast cancer or ductal carcinoma in situ (DCIS). In DCIS, the cancer cells are completely contained within the milk ducts. It is seen in 1-4% of cases of female breast cancer.

How does it present?

• Presents as chronic



eczematous change of the nipple with itching, erythema, scale formation, erosions, nipple discharge including bleeding

• Underlying palpable breast lump (usually indicates an invasive nature).

Investigations

• Punch Biopsy of nipple with immuno-histochemistry and special stains

• Investigation of breast lump if palpable

• how much of the breast is affected.

Surgery

Surgery is the main treatment for Paget's disease. This may involve an operation to remove all of the breast (a mastectomy) or an operation to remove the affected area of breast, including the nipple and areola, and some surrounding normal breast tissue (breast-conserving surgery). Some of the lymph nodes in the underarm may also be removed.

A mastectomy may be recommended if the cancer is affecting a wide area. It may be possible to have breast reconstruction at the same time as a mastectomy or as a second operation some months later.

Some people don't need any further treatment after surgery. Others may need radiotherapy, hormonal therapy or chemotherapy and or immuno-therapy. These treatments may be given separately or together.

Prognosis

Paget's disease of the breast is associated with a poor prognosis, which is worse if the lesion is associated with an underlying palpable mass.

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German researchers capture first birth on open MRI

REUTERS, Berlin

Doctors in Germany have captured a live birth by open MRI (magnetic resonance imaging) for the first time, offering insight into potential pregnancy complications, Berlin's Charite hospital said recently.

"The main reasons for the research are to answer the question of why a birth may stall and to visually capture the birthing process and any complications," Dr. Christian Bamberg, a physician on the research team, told. A stalled birth often results in a Caesarean delivery, which carries risks to mother and baby.

The MRI images allow the team of researchers to observe the first stage of labor in three dimensions, showing detailed visuals where previous scans were either too poor in quality or too dangerous for the mother and fetus, Bamberg said.

"The images are spectacular," Bamberg said. "They show which movements the fetus makes in the birth canal, how its bones move and how its head changes shape during birth." The birth was on November 20 and the scan lasted one hour.

Modern Herbal introduces a new executive diet

In order to provide fewer calories but more nutritious food for executive class, a complete food and nutritional meal replacement supplement has been introduced by Modern Herbal, says a press release.

The food named Juvo is made of more than 45 certified organic vegetables and fruits, rich in fibers, minerals, antioxidants and vitamins.

The Manufacturer claimed that the food helps reduce weight, cholesterol, control diabetes and protect from some cancer and heart disease.

"Executive people who want to avoid high calorie foods but at the same time want to be active would be benefited from diet," informed Nasirul Alam, Executive Director of Modern Herbal Group. "Apart from executive class, people who need to improve their health with rich nutrients through balanced diet, who skip breakfast and eat irregularly, diabetics, hard working people can also get benefit from the food", he added.

Knowing for better living

Oily & spicy foods, irregular food habit and smoking are the major causes of acidity !

- Avoid oily and spicy foods
- Take your food timely
- Avoid smoking
- Take medicine on Doctor's advice



Courtesy...

