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Thalassaemia in Bangladesh: The epidemiological data

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May 8 is observed as International Thalassaemia Day to focus the problem of thalassaemia and create awareness about this debilitating disease. In Bangladesh it is also observed but rather in a limited way and by few associations and centers.

Thalassaemia has not as yet been recognised as a significant health problem by the government. But it should be considered seriously.

Unlike malnutrition, diarrhoea, acute respiratory infections, thalassaemia gets less emphasis, which may become a visibly major health problem in developing countries like ours.

The world population of carriers of beta-thalassaemia is estimated to be more than 100 million. Carriers of the abnormal haemoglobin, HbE is quite common in Bangladesh (53 million worldwide).

To date, limited data on the state of thalassaemia — both carrier and patient — are available in Bangladesh perspective. However, a study carried out by Dhaka Shishu Hospital Thalassaemia Center in 2004 indicates higher carrier rate than previously thought, as well as demonstrates considerable regional variation. According to a report by the World Health Organisation, 3 percent of the population of Bangladesh are carriers of beta-thalassaemia and 4 percent are carriers of HbE.

The Dhaka Shishu Hospital study looked at carrier state among the school children. The study revealed that 4.1 percent children are carrier of beta-thalassaemia and 6.3 percent children are carrier of HbE. In tribal school children the prevalence of the HbE trait was 41.1 percent, while that of beta-thalassaemia was 4.2 percent.

A burden for future generations

Using the Hardy-Weinberg equation on the data according to the latest census of Bangladesh, the expected births of beta-thalassaemia affected children are about 1,040 per year, with a further 6,443 HbE affected births. Thus more than 7,000 children are born with thalassaemia each year in Bangladesh.

Thalassaemia poses demanding challenge in terms of managing with limited resources. For example, thalassaemia patients need huge amount of donated blood. Data collected by Dhaka Shishu Hospital Thalassaemia Centre indicates that 60 percent of donated blood is used by thalassaemia patients although most patients can not afford adequate blood for transfusion. Furthermore, blood screening is increasingly expensive. As a result, it is not always properly carried out, contributing to further complications, including hepatitis B, hepatitis C and HIV — all of which contribute to tremendous psychological pressure on patients and their families.

Blood donation is not the ultimate solution of these ailing community. These patients also need drugs to remove iron from their body, which accumulate due to early breakdown of their own blood cells and excess load of iron excretion due to huge amount of transfused blood. This is again a very expensive procedure.

DR TAREQ SALAHUDDIN

A thalassaemic child is receiving blood transfusion at the Thalassaemia Centre of Dhaka Shishu Hospital.

Looking ahead

Children are needlessly born with thalassaemia. We need to stop it now and only awareness can prevent it. To bring thalassaemia into focus, the significance of the disease burden and the sufferings of the patients must be recognised by the stakeholders and concerned bodies.

Prevention programmes should therefore focus on:

1. Promoting awareness of the disease
2. Population screening
3. Genetic counselling
4. Prenatal diagnosis

Promoting awareness

Raising awareness of thalassaemia involves seminars, workshops and close co-operation with the media. International Thalassaemia Day is, of course, a great opportunity to promote awareness of the appropriate management and prevention of thalassaemia.

Population screening

Identifying carriers of thalassaemia trait is an essential step in preventing further affected births. In many countries, screening and educational programmes are carried out in high schools, with considerable success.

Pre-marital screening for men and women is also essential. Married couples may also be screened, and should be sent for counselling if both of them test positive.

Counselling

Counselling plays an important role in preventing further affected births, although responses vary depending on the availability of prenatal diagnosis.

The experiences of counsellors at Dhaka Shishu Hospital Thalassaemia Centre suggest that many parents, particularly who have thalsaaemic child, do not wish to have another child until prenatal diagnosis is available.

Prenatal diagnosis

Prenatal diagnosis permits the diagnosis of a foetus with thalassaemia major. If the parents wish, they may decide to abort the foetus, usually in the 9th to 10th week of pregnancy.

Treating thalassemia in Bangladesh

The care of thalassemia patients in Bangladesh is very poor. Ninety percent of patients can not afford adequate treatment. The majority of the patients can not afford the iron chelating therapy.

Desferal, an injectable drug to remove iron is only available at irregular intervals and at fluctuating prices. Moreover, the sources of the drugs are unknown. Another oral iron chelating drug is available in Bangladesh Thalassemia Foundation and Bangladesh Thalassemia Society.

There is an urgent need to focus on the prevention, care and management of thalassemia patients. A thalassemia center should be established at all major hospitals of the country and essential drugs for the treatment of thalassemia should be subsidised and sold in designated outlets.

Widespread screening for the thalassemia trait combined with prenatal diagnosis must be introduced as a matter of urgency. Prevention of the births of further affected children in our country should now be a priority.

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Medical Update

'Rubber band' surgery for obesity cuts diabetes risk

REUTERS HEALTH, *New York*

After having "lap band" surgery for weight loss, men and women show large increases in sensitivity to the blood-sugar-regulating hormone insulin — even if they remain obese — a new study shows.

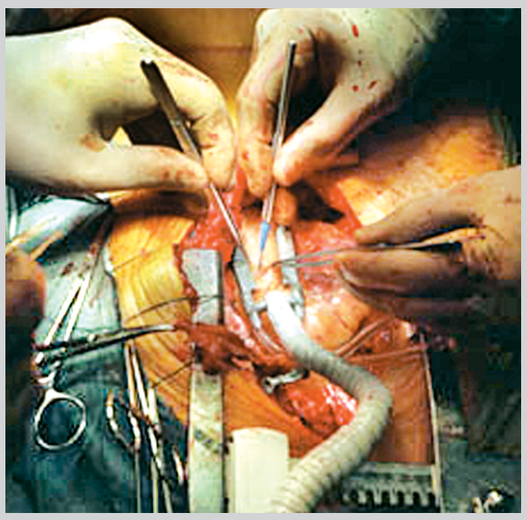
"They don't have to reach their ideal weight in order to make some pretty significant health improvements," Dr. Joan F. Carroll of the University of North Texas Health Science Center in Fort Worth, one of the study's authors, told.

In the operation Carroll and her team are investigating, known medically as laparoscopic gastric banding surgery, an elastic band is placed around the stomach, restricting the amount of food the stomach can comfortably hold. Another procedure, surgical gastric bypass, has been shown to help reduce the body's resistance to insulin — often a prelude to full-blown diabetes — before major weight loss has taken place, but less is known about how lap band surgery affects insulin resistance.

To investigate, Carroll and her team have been following 37 lap band patients for up to one year. Those followed for six months have lost 23 kilograms (51 pounds), on average, while average weight loss for those who have been followed for a year is 34 kg (75 pounds).

Their level of insulin resistance had fallen by 60 percent after six months, she told, even though the patients remained clinically obese.

Given that resistance to insulin greatly increases the risk of developing type 2 diabetes, which has a number of other health consequences including heart disease and even amputations, "over the long term it's really a benefit for all the body systems," Carroll said.



Statin before bypass surgery may boost survival

A study hints that taking a statin or other cholesterol-lowering drug before heart bypass surgery may boost survival.

However, investigators caution that the improvement may be more directly associated with factors other than cholesterol-lowering medication.

Dr. Brian D. Powell of the Mayo Clinic in Rochester, Minnesota, and colleagues analysed the outcome of 4,739 patients undergoing bypass surgery for the first-time between 1995 and 2001.

There were 2,334 patients who were on lipid-lowering therapy during the 30-day period prior to surgery and 2,405 patients who were not.

Powell and colleagues found that cholesterol-lowering therapy was associated a 36 percent decrease in the risk of dying in the hospital after heart bypass surgery.

But the team says that "patient risk factors and other cardioprotective medication use associated with the use of preoperative lipid-lowering therapy appear to explain the association with improved survival."

For example, patients on statins and other cholesterol-lowering agents tended to be younger, with an average age of 66 years compared with 68 years for the other group. Thirty-one percent of patients on cholesterol-lowering therapy had diabetes compared with 28 percent of those who were not. Other heart drugs called beta-blockers were taken by 70 percent of those taking cholesterol-lowering therapy compared with 77 percent of those who were not.

Despite the relatively large sample size, "we were unable to show that lipid-lowering therapy is independently associated with lower postoperative mortality...however, patients on statins had a lower risk profile," Powell's team writes in the American Journal of Cardiology.

"After adjustment for other risk factors, statin use was not associated with a significant decrease in mortality," they report.

Powell says that "it is still important" for patients having heart bypass surgery to take lipid-lowering therapy "because there are long-term survival benefits in patients with coronary artery disease."

Source: American Journal of Cardiology March 15, 2007.

REUTERS PHOTO

At least 200,000 people die every year from cancers related to their workplaces, mainly from inhaling asbestos fibers and second-hand tobacco smoke, the World Health Organisation (WHO) said.

Meeting the challenges in healthcare

DR TAREQ SALAHUDDIN *and*
MD RAJIB HOSSAIN

The healthcare landscape of Bangladesh continues to face challenges. Health of the general population remains unsatisfactory. We can access primary healthcare through different gateways. We suffer because of the huge difference in the quality and standard of healthcare we receive. We are also vulnerable to maltreatment in the hands of non-qualified practitioners (e.g. quacks, rural medical practitioners, traditional medical practitioners and so on). Besides, over the years, the situation has become so difficult that it may take years to put primary healthcare on the right track in Bangladesh.

Recently Dr Husayn Al Mahdy, a Medicine and Healthcare Management Specialist from the United Kingdom came to Bangladesh on a short visit. He has experience on the healthcare system of different developing countries. Dr Mahdy shared about different issues to meet the challenges in the healthcare system of Bangladesh with Dr Rubaiul Murshed, Chief Consultant of Healthcare Services Management of STS Group. The points came out from the discussion is projected here.

The government is the main provider of healthcare services to the population and has developed a network of primary, secondary and tertiary healthcare facilities. The services are mainly curative, rather than preventive. There are some 650 government hospitals, and one doctor for every 4,500 people. Long queues at hospitals have been established as a norm. Doctors frequently exhibit marked lack of care. Medical facilities and standard of hygiene are poor.

The physician: patient ratio in Bangladesh is 1:4775. Most physicians are based in urban areas. The scenario is poorer in the rural communities, where primary healthcare is provided by quacks, rural medical practitioners, traditional medicine practitioners and paramedics. Only 30 percent of the population of Bangladesh has access to primary healthcare.

In the urban areas, big cities, district towns and municipalities, people mainly depend on few medical specialists for their everyday health needs. No referral is needed to consult a specialist physician here. Whenever a patient feels problem, s/he directly go to the specialist at the very beginning and very often visit the wrong consultants.

In order to get benefit decentralisation of the healthcare facilities is a vital. In most instances, doctors, health workers are not willing to go to rural areas. Less income, facilities and flat salary make the situation difficult. This problem can be solved by giving incentives to the healthcare professionals who work with constraints. This way, rural doctors must be paid more than urban doctors to ensure proper healthcare services.

Doctors must be involved in health policy level as well. In fact, they realise the problems in this sector properly and can suggest fruitful solutions.

There are some 300 private hospitals, clinics and diagnostic laboratories in Bangladesh – mostly in urban areas. The reputed institutes should be recognised to provide quality care.

In case of serious or life-threatening health concern, people who can afford think mostly about medical services in overseas like India, Bangkok or Singapore. Local private hospitals should be up to the mark of international standard and should introduce latest facilities with cutting edge technologies.

Understandably both public and private health service are inadequate with limited facilities and shortages of trained medical staffs. By offering technical assistance at all levels, developing new programmes and directly helping them to develop as skilled manpower, we can improve the quality of care for the people.

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Your Doctor

Dr Ahmedul Kabir
Resident Physician
Dhaka Medical College Hospital
Dhaka

Dear Doctor
I am 35 years old. Recently I have been diagnosed with asthma. What should I do now?

I also want to know what triggers an asthma attack?
Regards
Nazrul Islam
Genderia, Dhaka.

Answer:

Asthma is a chronic breathing disorder characterised by recurrent attacks of breathlessness and wheezing.

Some causes and triggers are common to all people with asthma, and some are more individual. Although the fundamental causes of asthma are not completely understood, the strongest risk factors for developing asthma are inhaled asthma triggers which include indoor allergens (for example house dust mites in bedding, carpets and stuffed furniture, pollution and pet dander); outdoor allergens (such as pollens and moulds); tobacco smoke; and chemical irritants in the workplace.

Other triggers can include cold air, extreme emotional arousal such as anger or fear, and physical exercise.

In some people, asthma can even be triggered by certain medications, such as aspirin and other non-steroid anti-inflammatory drugs, and beta-blockers (which are used to treat high blood pressure, heart conditions and migraine).

Urbanisation has also been associated with an increase in asthma, however the exact nature of this relationship is unclear.

According to WHO estimates, 300 million people suffer from asthma globally. Although asthma cannot be cured, appropriate management can control the disorder and enable people to enjoy good quality of life.

In addition, some children with milder forms of asthma outgrow their symptoms with age.

Send health related queries (either in English or Bangla) to Your Doctor, Star Health, The Daily Star, 19, Karwan Bazar, Dhaka 1215 or e-mail your problem to starhealth@thedailystar.net

First aid of sprain

Ligaments are tough, elastic-like bands that attach to bones and hold joints in place. A sprain is an injury to a ligament caused by excessive stretching. The ligament can have tears in it, or it can be completely torn apart.

Sprains occur most often in ankles, knees or the arches of feet. Sprained ligaments swell rapidly and are painful. Generally the greater the pain, the more severe the injury. For most minor sprains, you can probably treat the injury yourself.

Follow the instructions for P.R.I.C.E.

1.Protect the injured limb from further injury by not using the joint. You can do this using anything from splints to crutches.

2.Rest the injured limb. But do not avoid all activity. Even with an ankle sprain, you can usually still exercise other muscles to prevent deconditioning. For example, you can use an exercise bicycle, working both your arms and the uninjured leg while resting the injured ankle on another part of the bike. That way you still get three-limb exercise to keep up your cardiovascular conditioning.

3.Ice the area. Using a cold pack, a slush bath or a compression sleeve filled with cold water will limit swelling after an injury. Try to apply ice as soon as possible after the injury. If you use ice, be careful not to use it for too long, as this could cause tissue damage.

4.Compress the area with an elastic wrap or bandage. Compressive wraps or sleeves made from elastic or neoprene are best.

5.Elevate the injured limb whenever possible to help prevent or limit swelling. Consult a physician immediately if:

You heard a popping sound when your joint was injured, or you can't use the joint. This may mean the ligament was completely torn apart. On the way to the doctor, apply a cold pack. You have a fever, and the area is red and hot. You may have an infection. You have a severe sprain. Inadequate or delayed treatment may cause long-term joint instability or chronic pain. The condition is not improving after the first two or three days.

Events / Health News

Yamagata-Dhaka Friendship Hospital, Bangladesh organised a hands-on training session on Friday last on the occasion of celebrating its two year of successful operation, says a press release.

The theme of the workshop was "The newest osseointegrated Titanium Dental Implant". Experts from Japan trained the local doctors in the capital.

The hospital has collaboration with Tamatsukuri Kosei-Nenkin Hospital, Japan where young physicians from Bangladesh get trained on different medical discipline.