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ASIA EDITION

Diabetes Tsunami hits Asia

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Between 1980 and 2014, the global prevalence of diabetes nearly doubled from 4.7% to 8.5%. Nearly 60% of world's diabetics live in Asia. Ahead of world diabetes day celebrated on November 14, BioSpectrum Asia analyses current scenario of diabetes in the Asian subcontinent and the need to have a national policy for better diabetes management



“These two tablets in the morning and these two at night,” said, the doctor to a visibly dejected Ria Paul (my friend). She was just 32 and has been diagnosed with type 2 diabetes. Within seconds her entire world turned upside down. Doctors handed her a huge sheet with list of do’s and dont’s. No sweets, less white rice, reduce weight, no junk food, and the list went on and on! She looked at me with deep pain and her eyes mirrored immense fear, sorrow, and worry of her 2 year old. We came out of the doctor room and saw a huge queue, many in their 30s waiting in anticipation to meet the doctor, each with a report detailing their blood work in their hands. That one report, which is going to change their lives totally from today!

Diabetes is a chronic disease that occurs when either the pancreas doesn’t produce enough insulin (type 1) or when the body can’t effectively use the insulin it produces (type 2). The disease is so common nowadays, that experts say the question now is not ‘will I get diabetes,’ it is –‘when will I get diabetes.’ Unless properly managed, over time, high blood sugar can seriously compromise every major organ system in the body, causing heart attacks, strokes, nerve damage, kidney failure, blindness, impotence and infections that can lead to amputations.

Asia’s diabetes ‘epidemic’ is growing at terrifying speed:

While statistics from infectious swine flu, Ebola seem staggering, there are many non communicable diseases like diabetes which kill thousands every year without grabbing headlines. Sadly, infectious diseases garner more attention from health officials, despite the piles of death certificates atop their desks attesting to a growing toll from non-communicable diseases such as diabetes, cancer and heart disease. `The last three decades have witnessed an epidemic rise in the number of people with diabetes, especially type 2 diabetes, and particularly in developing countries of the Asian region. Out of the 422 million people worldwide who have been diagnosed with diabetes as of 2014, more than 60% of the cases were from Asia, reports the International Diabetes Federation (IDF). China alone has recorded 100 million diabetics and 1.5 million deaths from the condition, the highest number of diabetes cases and mortalities of any country. By 2030, China is predicted to have 150 million diabetics. India is close behind, with roughly 78 million cases last year, and will have an estimated 140 million diabetics by 2030, says the IDF. Across Asia, the number of diabetes cases is projected to increase to more than 320 million

over the next 10 years. Japan's number of suspected diabetics hit 10 million for the first time last year, according to health ministry estimates.

“Although genetically south Asians are susceptible to diabetes and heart disease more than any other ethnic group, the major cause appears to be due to changing life style and wrong food imbibed from childhood and lack of physical exercise, points out, Dr Anil Bhoraskar, chair, IDF, Southeast Asia,

“It is estimated that by 2030, the numbers will almost double up to 140 million. Behind every known diabetic there will be one unknown diabetic, this is like an epidemic , we call it tsunami of diabetes.”

Diabtetes is not new to Asia, books and references indicate that this disease was known for past 3000 years, however, it was relatively rare and lesser cases were known until mid-half of the 20th century. Change in lifestyle, diet, urbanization boom in the latter half of 20th century has resulted in significant rise in number of diabetic patients. Dr Gampo Dorji, technical officer for noncommunicable diseases (NCDs) with WHO’s Regional Office for South-East Asia, mentioned in the WHO bulletin that the life-style changes associated with rapid urbanization, mechanized transportation, increased consumption of processed foods and physical inactivity are fuelling the epidemic. Urbanization and internal rural to urban migration has resulted in several adverse impacts; there is decreased physical activity, diet habits shift towards high-energy foods and body mass index (BMI) and upper body adiposity increases considerably.

Experts in the business caution that the disease has now assumed epidemic proportions killing one person every 7 seconds. Unless major steps are taken to curb this pandemic, by 2040, diabetes will affect approximately 642 million people. Dr Sowmya Swaminathan, director general, ICMR, explained, “There are a number of reasons leading to diabetes. The most important being the lifestyle. ICMR has conducted surveys in almost 17 states in India and the data reveals that the rural areas have a high number of pre- diabetic population. Another thing that has been highlighted is that there is a high calorie food intake in the diet.”

Are Asians at higher risk?

The Asia-Pacific region is generally considered as the epicentre of the diabetes crisis. In these countries, people develop the disease earlier, get sicker, and die sooner than their counterparts in wealthier countries. Experts opine that Asia is currently under an economic boon which is increasing chronic diseases too, in the subcontinent. Earlier, in Asia’s most populous countries, including China and India, a generation grew up in rural poverty, with too little to eat and jobs involving hard manual labour. They now live in urban high-rise apartments, with sedentary jobs, cars, and food environments loaded with cheap and convenient calories. As a result of these changes, millions of people lifted out of poverty join the booming middle class and find themselves trapped in the misery of chronic diseases.

Apart from these, studies also highlight that Asians have a strong ethnic and genetic predisposition for diabetes when compared with people of European ancestry. Asians are more likely to develop the disease even at a lower BMI. This means that even though some Asian populations currently have a lower prevalence of overweight and obese individuals than populations in the West, they have a disproportionately high percentage of people with diabetes. The adverse effect of physical inactivity and fatty food are manifested as the increasing rate of overweightness and obesity, even among children. Dr Anil underscores, “Asians are at very high risk to get diabetes even though they may not be overweight like Caucasians. An Indian with a low body weight generally has more fat in the abdomen we call him “THIN FAT INDIAN ‘’. It is this abdominal fat- white fat is bad fat , has fewer mitochondria as compared to the brown fat which is healthy fat seen in babies . white fat is the dead weight and biggest risk factor for diabetes. Indians have this fat accumulated around their waist , hence waist line is an important marker of diabetes and heart disease. It very aptly said ‘Lifeline is inversely proportional to waist line’”

Is it time to have a national policy to curb diabetes?

Currently, only about seven out of 11 countries in the South-East Asia Region have operational policies for diabetes, either stand-alone or integrated with other NCD policies, according to WHO. Dr Swaminathan, said, “India does not have a policy as such. But there are guidelines being processed. Currently, we have started a program on hypertension. So, on the similar lines we are planning something for combating diabetes as well in the future.”

In its new global report released last year, the WHO urged South Asian governments to take "vigorous and concerted" action to prevent and treat diabetes. The health agency emphasized that governments "must" regulate the marketing of food to children as well as ensure accurate food labelling to help the consumers make informed health decisions that can help them avoid diabetes.

“Diabetes rarely makes headlines, and yet it will be the world's seventh largest killer by 2030 unless intense and focused efforts are made by governments, communities and individuals," said Dr Poonam Khetrapal Singh, Regional Director, WHO

South-East Asia.

Diabetes is a huge disease burden and Asian governments like China, Malaysia, Singapore, Japan and India have identified diabetes as a significant disease threat and strain on their public health systems. For instance, a recent joint study by the IDF and the Chinese Diabetes Society (CDS) indicated that expenses related to diabetes account for approximately 13% of total medical expenditure in China. Even in those Asian countries that have programs for diabetes management, implementation of these programs and funding is a big challenge. Basic technologies for early detection, diagnosis and monitoring of diabetes in primary care settings are generally not available in low-income and lower middleincome countries, and as a result many cases go undiagnosed till the last stage. As per a WHO survey only few countries have conducted a national, population-based survey with measurement of blood glucose status within the past 5 years.

Dr Bhoraskar, added, “In India present prime minister has taken the cognizance of the problem of non communicable disease and the states run by his government have come down heavily on the fast food at least around the schools which is the first important step to contain this epidemic. Outdoor sports are being encouraged and our prime minister with his own lifestyle has influenced our youth to practice yoga and healthy eating , which I feel is a good beginning.”

Dr Singh emphasized that taxing sugary beverages and re-investing the revenue in health promotion activities is an evidence-based intervention that makes real change. "Governments must also increase access to health care and promote educational campaigns regarding self-management and control and aim at making treatment less costlier. Diabetes can be managed successfully. It does not have to lead to complications or be fatal," Singh said.

Diabetic Asia- A huge opportunity for industry players

As per reports, five out of top ten selling drugs in India are anti-diabetes, a sad reminder of the growing cases in the country. Antidiabeteic market is poised to reach $ 110 billion by 2024; according to a new research report by Global Market Insights, Inc

With surging cases, large MNCs are already capitalizing on the rising demand for diabetic products in the region. Recently, Novo Nordisk made an announcement that its drug Tresiba for the treatment for diabetes received the Chinese regulatory nod. Global pharmaceutical giants have realized the huge potential offered by Asian markets in diabetes management and are partnering with Asian companies to make inroads into the region. For instance, Thermalin Inc. of Cleveland said it has raised $17.5 million in Series A financing and has formed a partnership with pharmaceutical company Sanofi, to develop insulin therapies for people with diabetes.

Many companies are also using technology to address the unmet needs in Asia. Novo Nordisk, in collaboration with health tech startup Glooko has developed an app called Cornerstones4Care Powered by Glooko, or the C4C app for short, and it allows people with diabetes to measure and track blood glucose, activities and meals. Likewise, Abott recently bagged an FDA approval for needle-less blood sugar monitoring, which is a great relief for people with needle phobia or distaste of needles or blood.

Experts opine that with increasing awareness and affordability the demand for novel means of diabetes management is increasing in Asia. Japan, for instance, has a high per capita healthcare expenditure, Japanese consumers enjoy relatively high incomes and have an appetite for advanced healthcare technologies. Japanese manufacturers of diagnostic tests for diabetes are ramping up operations in the rest of Asia, as they hope to catch up with global players by tapping into emerging markets.

Conclusion

The huge burden of diabetes in Asia poses significant social and economic problems to most nations in the region and could impede national and global development. More action is required to understand the drivers of the epidemic to provide a rationale for prevention strategies and address the rising global public health "tsunami." Unless drastic steps are taken through national prevention programs to curb the escalating trends in all of the countries, the social, economic, and health care challenges are likely to be insurmountable. Many experts are now recommending holistic approaches to treatment of diabetes, which largely involves mind and body instead of just treating the symptoms of disease. This involves, unboxing and exploring the wealth of traditional medicine of China and AYUSH practices of India, in culmination with allopathic interventions. Concerted efforts, government support for research and integration of holistic practices, can help India and China soon become the capital for diabetes management in the world.