

## Diabetes Mellitus – The Epidemic of 21<sup>st</sup> Century

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Diabetes is one of the commonly experienced diseases worldwide but it is more commonly seen in third world countries like Pakistan, India, Bangladesh, and others. It is considered as the epidemic of the 21<sup>st</sup> century. According to International Diabetes Federation (IDF) 2021 figures, 537 million adults (20-79 years) are living with diabetes all over the world (1 in 10 people) and this is predicted to be 634 million by 2030. Over 3 in 4 adults with diabetes live in low- and middle-income countries. Pakistan is one of the most affected countries in the world and is ranked 3<sup>rd</sup> by the number of adults with diabetes after China and India. Approximately, 33 million adults are affected with diabetes in Pakistan and overall prevalence is about 26.7%.<sup>1</sup>

Diabetes mellitus is a metabolic disease that results from insulin deficiency and or peripheral insulin resistance. It can affect people of all age groups. There are several types of diabetes but Type 2 Diabetes Mellitus (T2DM) is the most common with 90% of all the diabetics being affected with this type. This type usually affects the adults and becoming more common in obese people. Long-term diabetes may proceed to serious, chronic complications having impact on the lives of individuals, families and societies. Patients are usually asymptomatic or have less or vague symptoms, diagnosed late and may be already having serious complications. It may affect the major organs of the body and may lead to blindness, renal failure, stroke, cardiovascular disease and diabetic foot complications. It is also considered as one of the major causes of cardiac related deaths being two third of the diabetic patients die of cardiovascular disease.

In an adult, genetic factors and life style changes are the main predisposing factors to develop diabetes. Life style factors include obesity, a sedentary lifestyle, and the intake of more processed food with higher sugar content. In Pakistan, obesity is becoming more prevalent and in one of the study the overall prevalence of generalized obesity was 57.9%

(42% in males and 58% in females), and central obesity was 73.1% (37.3% in males and 62.7% in females) in Pakistan.<sup>2</sup> Our children and young adults are developing a habit of using canned and highly processed food more frequently along with little to no physical activity hence leading to surge in obesity. These bad dietary habits and early development of obesity predispose our children and young adults to develop pre-diabetes thus increasing the risk of changing to diabetes in the coming years. The increased urbanization coupled with the adaptation to the urban sedentary life style makes the possible increase in the number of cases even more concerning. Many Pakistanis live in rural areas and a lack of access to affordable education also plays a role in growing diabetes cases. Many people even in urban areas don't understand that diabetes is a silent killer and many seek medical advice when their health status already declined due to diabetic complications.<sup>3</sup>

Management of diabetes revolves around healthy balanced diet, physical activity and pharmacological measures. Eating more of vegetables and fibrous foods avoiding sugary products make it a well-balanced healthy diet. Optimization of the body weight with daily physical activity in the form of 150 minutes' brisk walk per week is mandatory for the better management of diabetes. Great advances are made in the pharmacological management of diabetes with new drugs coming up not only having good control of diabetes but also providing cardiovascular safety and protection. SGLT2-i (Sodium-glucose co-transporter-2 Inhibitors) and GLP1-RA (Glucagon-like peptide-1 receptor agonists) are new drugs commonly used for the better control of diabetes and reducing the risk of complications. Most of these new treatment modalities are costly. The high cost along with poor compliance to the medication adds together with more number of diabetic patients with complications. There are several diabetes myths that prevail within Pakistan due to which healthcare professionals and

patients suffer from improper treatment plans leading to harmful consequences in diabetic patients.<sup>4</sup> People believe that increased consumption of sugar leads to diabetes, but actually consumption of sugary products does not have any direct link to diabetes but it does have an association with lifestyle changes, development of obesity and pre-diabetes. They are prone to develop diabetes at early age. As diabetes is one of the major health hazards leading to long-term complications and concerns for most patients, one should avoid incorrect information about diabetes. Most of the people in our society are unaware of the impact of lifestyle modifications on our health in terms of prevention, control, and treatment for diabetes and most people are not even aware of the normal range of blood sugar levels. It is therefore essential to provide correct information about lifestyle changes when offering diabetic treatments. The best and economical diabetic treatments should be provided to the people and attention should be paid to the health status and lifestyle of the patients.

In our country many people don't take diabetes seriously and at times heard saying that their sugar is little high or just have a touch of diabetes. They should be educated that diabetes is a serious disease and they must learn to manage it. They must not let the diabetes to affect their body with physical complications of diabetes and even have an impact on quality of life. They need to make healthy food choices, stay at a healthy weight, move more every day, and take their medicine even when they feel good. Although it's not easy, but it's worth to adopt such behavior and compliance.<sup>5</sup>

The medical experts also believe that bad dietary habits, lack of exercise and rising obesity are contributing to Pakistan's diabetes surge. This problem is attributed to the lack of sporting facilities, as well as limited public spaces for exercise, particularly in schools. Public hospitals are providing services to the diabetic patients and quite a few

diabetic centers are established but these setups are insufficient for provisions of good diabetic care to many people. Rising health care costs and poverty also play important role in poor management of diabetes. In last few years the prices of the medication have skyrocketed, steering away many patients.<sup>6</sup> The government cannot solve the country's health problem alone, especially this very high number of diabetics in our society, unless people change their lifestyle and dietary habits. The problem will continue to haunt us and millions of more people will suffer from it in the coming years. It is not solely the responsibility of health care professionals but other strata of society like religious and social media influencers should step forward to combat this growing challenge. More awareness of the disease needs to be raised nationwide through social, news and print media and even by starting health education at school level.

## References

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