Diabetes a major public health issue health essay



According to current estimates about 366 million people have diabetes in 2011 all over world. It has been projected that by 2030 this will have risen to 552 million. The number of people with type 2 diabetes is increasing throughout the globe. Among them about 80% of people with diabetes live in low- and middle-income countries. The majority of people with diabetes lie in the age group of 40 to 59 years of age. Almost half of this population, 183 million people (50%) is undiagnosed.

Diabetes caused 4. 6 million deaths in 2011. 78, 000 children develop type 1 diabetes every year.

India has become the global capital for both the kinds of diseaseCommunicable as well as NCD or life-style diseases. There is this double burden of disease. The major diseases in the NCDs are Diabetes, CHD and Hypertension. These three diseases alone cause more than 400 deaths per million population in a year. Among them Diabetes demands the major concern because it is intricately related to the development of the two other factors (increases the risk of) CHD and Hypertension. There is also an increasing trend of obesity world-wide which also adds to the development of Diabetes as a risk factor.

It is the fourth or fifth leading cause of death in the most high-income countries and it is taking the form of an epidemic in many developing as well. Diabetes has become one of the most challenging health problems of this century. There have been many studies since the last two decades which confirm that the low and middle income countries are going to face the greatest burden of this disease. The governments and public health

planners of many developing countries including India still remain ignorant of this upcoming health evil. The magnitude of this disease has serious implications in terms of its economic burden in its treatment and loss in terms of wage and deteriorated quality of work by people affected by Diabetes. This can drastically influence the growth of a country especially developing countries like India.

Global Prevalence of Diabetes and projection till 2030global-diabetes. png

Numbers of people with diabetes (in millions) for 2000 and 2010 (top and middle values, respectively), and the percentage increase

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Source- Nature | Vol. 414 | 13 December 2001 | www. nature. com

There have been reports of increasing cases of Myocardial Infarction even in very young patients among the Juvenile diabetes cases. It is a far more disabling than generally considered, it drastically decreases one's stamina and working capacity. As it is a multisystem disorder it influences other sensory functions as well such as Diabetic retinopathy (hampering vision), Diabetic nephropathy (causing renal disease and failure), Diabetic neuropathy (including diabetic foot) and many other complications.

The presentation of classical symptoms of polydypsia, polyphagia, polyuria is not always the picture of diabetes. It is only seen in few classical cases. So, it is often diagnosed during routine test or examination done when patient had presented for some other disease or illness. The lack of awareness among

people about this disease is of major concern. Due to this many cases go undetected.

India has imitated the Western ways of lifestyle and hence illnesses such as obesity and diabetes are increasing day by day. In 2011, India had 62. 4 million people with type 2 diabetes, compared with 50. 8 million cases in 2010, according to the International Diabetes Federation (IDF) and the Madras Diabetes Research Foundation. The nationwide prevalence of diabetes in India now tops 9%, and is as high as 20% in the relatively prosperous southern cities. By 2030, the IDF predicts, India will have 100 million people with diabetes.

Another matter of great concern is the fact that the onset of type 2 diabetes tends to affect people in the West in their 40s and 50s, whereas the disease strikes Indians at a much younger age. Even young people of 25 years of age are being diagnosed with the disease, a trend that threatens to seriously hamper the country's economic development.

The rise of type 2 diabetes in India was in fact foreseen by some scientists and health experts. Till1980s, the urban prevalence of diabetes was at least double the rural prevalence. But this picture of diabetes has changed significantly over time and has spread out of urban cities into the countryside and majority of rural areas.

Type 2 Diabetes constitutes more than 90 % of the whole diabetes cases in any country including India. It has a wide variety of determinants and risk factors associated with it, which need to be known and focused during policy formulation to address Diabetes.

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Aetiological determinants and risk factors of type 2 diabetes Genetic factors

Genetic markers, family history, 'thrifty gene(s)'
Demographic characteristics
Sex, age, ethnicity
Behavioural- and lifestyle-related risk factors
Obesity (including distribution of obesity and duration)
Physical inactivity
Diet
Stress
' Westernization, urbanization, modernization'
Metabolic determinants and intermediate risk categories of type 2 diabetes
Impaired glucose tolerance
Insulin resistance
Pregnancy-related determinants (parity, gestational diabetes, diabetes in offspring
of women with diabetes during pregnancy, intra-uterine mal – or over nutrition)

Source- Nature | Vol. 414 | 13 December 2001 | Www. Nature. Com

"Villages in wealthier southern states like Tamil Nadu and Kerala are seeing prevalence hit double digits, which is enormous. If it was confined to affluent India, you could still put a lid on it, but now it's rising quickly all over the country." as per Nikhil Tandon, an endocrinologist at the All India Institute of Medical Sciences in New Delhi.

There is also a considerable genetic propensity towards Diabetes in the Asian population particularly in India.

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AIMS & OBJECTIVES

Diabetes has yet not been recognized in our country as a major public health issue, although the morbidity and mortality and hence economic burden and loss due to it is much higher than that caused by many other communicable or other diseases such as AIDS or STDs, for which there are well formulated programs. But there are no such programs or targeted approach to tackle this very prominent deterrent of health in our country, Diabetes. There is almost no health care accessibility and availability dedicated in this regard in public scale. They are primarily excluded from government policies and decision making process. Not much work or studies have been conducted on the prevalence of Diabetes in India, especially rural India. There is a need to assess the real magnitude of this urgent problem which demands special concern in form of targeted policies and programs and screening. The aim of

my study is to highlight the immediate need of recognition of Diabetes as a major public-health concern and formulation of strategies,

Policies and programs concerning Diabetes in India.

RECOMMENDATIONS

- (1) Studies need to be conducted to determine the level of awareness and knowledge about diabetes at the community level in different parts of India. As we know IEC is very important for any community or mass scale program to be successful. It is also important in view of the Sickness behavior and the sick role played by the individuals. Creating awareness among the people will make them come up for the screening and a better turn up for treatment in early stage which will significantly reduce the loss due to the disease to the person and state as a whole.
- (2) More studies and research required to identify the risk factors for diabetes, the relationship between anthropometric measures and diabetes risk and estimate the burden of diabetes in this rural Indian population with an objective to identify target areas for future healthcare planning.
- (3) Screening programs need to be formulated in the mass scale and many rounds of such screening will be required to assess the real magnitude of the problem in Indian population, so that, resources are used accordingly for planning of policies and programs. These data will be extremely important for planning the public health policies especially the envisaged National Diabetic Control Program.

- (4) Tracing the exact pattern of the disease in the population and its demographic pattern is essential. Some of the recent studies have identified increasing cases of juvenile diabetes and there is detection of more and more cases in the lower marginalized and poorer section of population (Diabetes was once believed to be disease of elites, those of the rich sections of population associated with over eating, obesity etc). Now the picture of disease is changing which needs to be traced and addressed in the following policies for diabetes control and prevention. Research should also be directed in the direction to identify the most appropriate test for screening purpose, as the results depend on the test employed to a significant degree, especially when employed for mass screening.
- complications due to Diabetes can be even more disabling and in some cases even fatal. So it is very important to make clear cut policy outlines to tackle with the complications of Diabetes and its prevention. Measures should aim at intensive control of blood glucose to prevent the retinal, renal and neuropathic complications of diabetes. There is a concealed burden of Impaired Glucose Tolerance. The possibility of preventing type 2 diabetes by interventions that affect the lifestyles of subjects at high risk for the disease have focused on people with impaired glucose tolerance (IGT). It affects at least 200 million people worldwide. Approximately 40% of subjects progress to diabetes over 5-10 years, but some revert to normal or remain IGT. So, it is very essential to take this group of individuals into consideration.

(5) Clear cut policy outlines to tackle with the complications of Diabetes- The

(6) Formation of a separate body under Ministry of Health and Family Welfare as Diabetes Control Organization or so to tackle with Diabetes in an integrated and comprehensive way throughout the country. Formulation of Control and Prevention Programs to be implemented in each state.

Prior to this there should be formation of an Expert group to assess the actual prevalence and exact demographic characteristics of Diabetes in different regions of India.

(7) Reinforcing legislative changes such as increased taxation of certain 'unhealthy' foods to promote healthy diet. Although it is difficult but such steps may help to a great extent.

CONCLUSION

A much more integrated approach is needed to have a significant impact on the diabetes epidemic in India. Type 2 diabetes is not merely a disease but reflection of a much bigger problem, that is, the effect of environmental and lifestyle changes on human health. We need well integrated policies for education of the mass through IEC. The major proportion of Diabetes cases in India is Type-2 which is preventable. It is a huge threat to public health and in absence of interventions there would be great loss.

Thus prevention of diabetes and its micro- and macro-vascular complications should be an essential component of future public health strategies for all nations. An essential and immediate need is the formation of multidisciplinary national encompassing all parties that can help address and

control the underlying socioeconomic causes that have led to the diabetes epidemic.

ANNEXURE

Recent studies have highlighted the potential for intervention in IGT subjects to reduce progression to type 2 diabetes. One such study is the recently completed Diabetes Prevention Program in the United States.

Diabetes education is necessary to control Diabetes. It includes diabetes self-management education (DSME) and diabetes self-management training (DSMT). It helps people to modify their behavior and hence mange the disease. Healthy People 2010 objective regarding diabetes education- At least 60 percent of persons with diabetes should receive formal diabetes education in order to attain considerable level of awareness in the community as per the American Association of Diabetes Educators.

List of Stake holders-

Govt. of India, Ministry of health and Family Welfare.

State Governments.

NGOs and other organizations

Media for awareness.

Family of Diabetic patients.