

DIABETES IN THE YOUNG: PRIMARY PREVENTION, THE NEED OF THE HOUR

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INTRODUCTION

Type 2 diabetes mellitus is spreading across the world in epidemic proportions. Current estimate of 150 million persons affected by this condition is expected to double in number by the year 2025. 50-75% of this increase is likely to occur in the developing countries in Asia. These alarming statistics are further highlighted by the fact that more young people below the age of 40 will be affected in future. Signs of this are evident today and many countries are reporting increasing prevalence figures in this age group across the globe. This dual problem of increase in number and earlier onset, needs urgent attention more than ever before.

DIABETES IN ASIAN COUNTRIES

Many Asian countries are reporting prevalence data in excess of 10% in the adult urban populations. Pakistan, India and Sri Lanka are examples of this double-digit prevalence in the year 2001. All of these countries are recording over 12% prevalence rates of diabetes with a total abnormal glucose tolerance in excess of 20% indicating a high prevalence of IGT. This combination of elevated diabetes and IGT has a sinister connotation for the future and makes the need for a prevention strategy an absolute necessity. The prevalence of diabetes mellitus, impaired glucose tolerance (IGT) and abnormal glucose tolerance (AGT) in urban areas is shown in table 1.

Table 1: Asian Figures at a Glance (Urban)

	Sri Lanka (1)	India (2)	Pakistan (3)
DM	12.7%	12.1%	12%
IGT	14.4%	14 %	10%
AGT	27.1%	26.1%	22%

Table 2: Increased Prevalence of Diabetes Mellitus in Sri Lanka Within the Decade – 1988 - 1999

Diabetes Mellitus

Rural Prevalence – increased from 2% (4) to 7.7% (1)

Urban Prevalence – increased from 5% (5) to 12.7% (1)

Total Abnormal Glucose Tolerance (AGT)

When considering the data from Sri Lanka in detail, it is evident that an alarming increase has occurred during the last decade in the prevalence of diabetes, IGT and AGT both in the rural and the urban sector. This is shown in table 2. If this rate of increase continues into the next quarter century, we would exceed the predictions made by the WHO. In addition to total number of persons detected, we have also recorded a reduction of age of maximum prevalence. This has declined from the over 60 years age group to the 31-45 age group, confirming the earlier onset of this condition in the community.

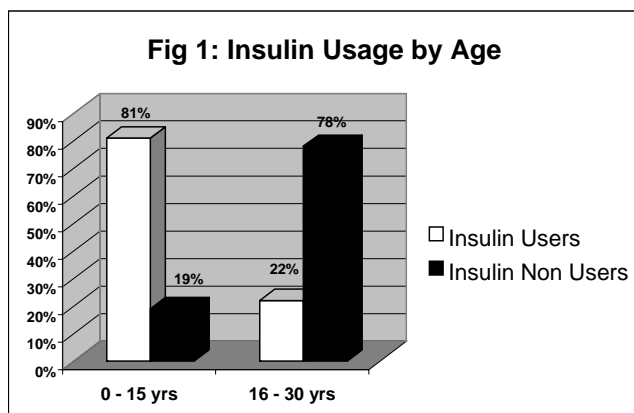
Data collected from the Single Visit Screening programme conducted at the National Diabetes Centre between 1998 –2000 in a group of 9703 persons, 8.7% seem to have their illness arising below the age of 30 years (Table 3).

Table 3: Reduced Age of Onset of Patients with Diabetes Mellitus.

1988 (ref. 4)	1998-2000 (ref. 6)
Maximum Prevalence	Maximum Prevalence
Over 60 age group	31-45 year age group
Under 40 years	Under 30 years
NIL	8.7%

Further analysis shows that nearly 80% of the patients in 16-30 year age group are insulin non-users and 20% of patients in 0-15 years age group are similarly managed without insulin. These patients fall more into the normal or overweight category and their family history is more in keeping with that of type 2 rather than of type 1 diabetes mellitus with an average prevalence around 60% (Fig 1). This information is being collaborated in many countries such as the USA (7), UK (8) and some Asian countries.

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This trend makes the epidemic more sinister and tends to engulf the entire age span of the population.

A decade ago, there was a window of opportunity below the age of 40 years where the younger generation was free of the illness and capable of pursuing their educational requirements, social obligations such as marriage and childbirth prior to being afflicted by this condition. The recent trend of younger onset of type 2 diabetes mellitus seems to take away this safe period and poses a greater threat to the younger persons in our community. Early onset of this condition creates many problems to the patient, family and the community. Some of them are highlighted below:

1. Psychological problems of non-acceptance
2. Refusal to change life styles
3. Long duration of the illness
4. Increased dependency and usage of medications
5. Increased risk of complications
6. Problems of employment and marriage
7. Diabetes complicating pregnancy will become more prevalent with its attendant high risk of the illness in the offspring.

We as the medical fraternity of the world who are committed to the prevention and treatment of this condition cannot remain complacent in the light of this sinister epidemic, which is threatening to engulf our younger generations and us in the future.

Therefore it is paramount that we formulate a preventive strategy on data currently available without any further delay. This will be the only way in which we can stem the tide. In order to do this we must first agree on the aetiological basis of type 2 diabetes mellitus.

ACTION PLAN

We in Sri Lanka have planned to host the 4th International Conference of Diabetes in Asia, 6th – 7th July 2002 at the Colombo Hilton, with the theme of “Diabetes in the Young – the Epicentre of the Epidemic” with the aim of arriving at a consensus on aetiology. Once such a consensus has been reached with an International audience, we hope to develop a Primary Prevention Strategy that would be applicable universally. We feel that all socially conscious well-meaning opinion leaders of the world dealing with this subject will join us and strengthen our resolve to make our conference a success. We have invited the President of the International Diabetes Federation to be our chief guest and the Director of Diabetes at the World Health organization to be our guest of honour. We hope they would act as moderators and help us to ratify our conclusions through their respective organizations.

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