ASK EXPERT: Type 1 Diabetes – A long affair to manage

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Type 1 Diabetes

Type 1 diabetes is an autoimmune disease in which beta cells in the pancreas that are needed to produce insulin are destroyed and as a result no or very little insulin is produced. The disease mostly occurs in children, teenagers and young adults although it may have its clinical onset at any age.

Without insulin, the body is not able to metabolize blood glucose (sugar), to use it efficiently for energy, which is needed by all of us to live and grow. The only way that the body can once again use sugar for energy is to replace the missing insulin by taking it from outside. Right now, the missing insulin can be given only by injections. Most children take insulin injections several times a day and they need to take this for the whole of their life. The goal of treatment is to maintain the best possible level of glucose control as it helps children with diabetes to live healthy, long and near normal lives.

A Long Affair to Manage

Diabetes remains with the child as they grow; it’s with them at primary school, high school, college and even when they go for jobs. One cannot go on vacation, leaving diabetes behind; it needs to be managed all the time. Managing a chronic persistent condition like type 1 diabetes affects every aspect of an individual’s life along with their entire family, and this is a continuous on-going process.

- Daily diabetes management: along with taking insulin, also involves attention to meal planning, regular exercise, careful monitoring of blood sugar levels and other parameters as uncontrolled diabetes can result in various acute and chronic complications of diabetes involving almost every organ of the body.
- The needs of the children with diabetes change as they grow and develop. Along with that there is a continuous effort of dealing with acute complications such as hypoglycaemia and fear of developing long term complications in the future.
  These psychological distresses can be sometimes very severe.
- Children and adolescents with type 1 diabetes face significant burdens on health, psyche and overall quality of life, due to the early appearance of the disorder. Diabetes affects them when they are with their friends, while dating and going for matrimonial alliances. Many of them face rejection due to diabetes. This scenario can be changed by controlling diabetes and having a positive outlook.

Early control - Essential for good outcomes

For people with diabetes (including type 1 diabetes), self-monitoring and HbA1c measurements are the evidences available to know about their diabetes control. Although complications may take many years to develop (mostly after 5 year of diagnosis and inadequate control), adequate control cannot be excused in children and adolescents. Observations of the Epidemiology of Diabetes Interventions and Complications (EDIC) study and Diabetes Control and Complications Trial (DCCT) had significantly shown reduction in the risk and burden of most of the long term complications and better outcomes especially when the good glycaemic control is maintained in the early years after diagnosis. This effect may be due to metabolic memory or due to good habits formation in the early stages of type 1 diabetes.

Current Indian Scenario

It is estimated that there are around 1.2 Lakh children (IDF 2012) living with diabetes in India. The impact of diabetes is very huge especially, when it strikes in childhood or adolescence. Adequate management of type 1 diabetes requires an ecosystem of support which includes healthcare professionals, medication and monitoring, diabetes education and support from society and family. Healthcare, in India, is primarily financed through out-of-pocket payments by households. Basic diabetes treatment sometimes seems to be out of reach for many people belonging to under privileged class; as a result many children either lose their lives or suffer from early appearance of many complications of diabetes.

Changing Diabetes in Children (CDIC) program

Novo Nordisk Education Foundation along with 21 specialized diabetes care centres across India, has tried to address this critical gap in the management of Type 1 Diabetes through its CDIC program. This is a unique programme which addresses the need for proper treatment and comprehensive care for children less than 18 years of age belonging to the economically under privileged class of society with type 1 diabetes. The 4000 children registered in the program are provided with free insulin,