

CHILDHOOD ONSET DIABETES MELLITUS IN NORTH INDIA CLINICAL PROFILE AND IMMUNOLOGICAL STUDIES

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We have analysed data of 167 subjects with childhood onset diabetes mellitus (onset before 20 years of age) who have been under our followup over the last 6 years. There were 97 boys and 70 girls. All but one, were insulin dependent, based on their clinical requirement for insulin; one child had FCPD (Fibrocalculous Pancreatic Diabetes); none of these diabetics could be classified as NIDDM (controlled on diet and/or oral hypoglycemic agents). The mean age of onset was 10.7 years; age of onset, was under 5 years in 16.2%; 6-10 years in 31.1%, 11-15 years in 29.9%, and 16-20 years in 22.7%. The mean duration of diabetes was 2.5 years.

Islet cell autoantibodies (ICAb) were analysed (n = 107) by the indirect immunoflorescence technique (FITC-protein A) using fresh frozen monkey pancreatic substrate, and IDW quality control sera (sensitivity = 89%; specificity = 85%). ICAb were positive, in 59.3% subjects; the highest prevalence was seen soon after diagnosis, prevalence fell progressively with time. In a subject of subjects with very long duration, however, there was an increased prevalence seen :

Islet cell antibodies :

DM Duration	NO of PTS	NO+ve	% +ve
1-3 months	28	13	46.4
4-12 months	26	10	38.5
13-60 months	29	8	27.6
61-120 months	14	6	42.8
> 120 months	10	5	50.0

The prevalence of ICAb positivity declined progressively with increasing age of onset :

Age of Onset	NO of PTS	NO±ve	%±ve
1-5 years	13	6	46.1
6-10 years	39	17	43.6
11-15 years	29	10	34.5
16-20 years	26	9	34.6

We conclude that :

1. Childhood onset diabetes seen in North India is predominantly of the IDDM type.
2. The clinical and immunological profile was similar to that described in the more affluent societies of the West.