

MORTALITY IN IDDM OBSERVED IN A TERTIARY REFERRAL HOSPITAL IN INDIA

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Analysis of hospital medical records from 1977 to 1987 (11 years) led to the identification of a total of 580 'diabetic deaths'* (all age groups). Out of these 11 (1.9%) were childhood onset (before 20 years of age), and 24 (4.1%) youth onset (21-30 years) diabetes.

In a cohort of living subjects with childhood onset diabetes currently under follow-up in the Diabetes Clinic of the same hospital, diabetes duration was 1-3mo in 25%, 4-12mo in 24%, 1-5yr in 27%, 6-10yr in 13%, and >10 years in ONLY 9% of subjects.

A: Childhood onset (before 20 years of age; all IDDM; HTN in 0%)

	DKA	CAD	CRF	CVD	INF	OTH	TOTAL
DEATHS	10 (91)	1 (9)	-	-	-	-	11 (100)
Age onset	16.1	16					yr
Duration	0.2	30					yr

Abbreviations : DKA==diabetic ketoacidosis; CA.D : Coronary artery disease; CRF=chronic renal failure; CVD=Cerebrovascular disease; INF=infection; OTH=others; HTN =hypertension. () = %.

* diabetic deaths ascertainment : (approx) case sheets mentioning diabetes out of actual diabetic deaths=75%; case sheets traceable=70%; case sheets with proper data=80%.

B : Youth onset (21-30 years of age; IDDM=20; NIDDM=4, HTN in 43%)

	DKA	CAD	CRF	CVD	INF	OTH	TOTAL
DEATHS	5 (21)	3 (13)	7(29)	2(8)	4(17)	3(13)	25(100)
Age onset	23.8	27	27.6	28.9	27.1	25.9	yr
Duration	0	16.3	14.8	15.6	7.1	1.6	yr

CONCLUSIONS : The overall prognosis for childhood onset diabetes in India is DISMAL and ALARMING. Even 75 years after the discovery of insulin, diabetic ketoacidosis (a well recognised preventable and treatable medical situation) accounts for 91% of childhood onset diabetic deaths. These DKA related deaths uniformly (100%) occurred at the time of initial diabetes diagnosis or within a few months. Possibly, in our current health care scenario only a very small fraction of children with

diabetes survive long enough to develop the chronic macro-and micro-vascular complications of diabetes. In contrast, in USA childhood onset diabetic deaths are accounted by coronary heart disease in 48% and renal failure in 31%, with 90% of children surviving 20 years of diabetes, 77% 30 years and 45% 40 years (Joslin Clinic data, Diabetes, 30 (Suppl. 2) : 90, 1981). URGENT ATTENTION AND REMEDIAL MEASURES SEEM WARRANTED.