

Prevalence of MODY Patients within a Large Group of Patients with Diabetes Mellitus within the United Arab Emirates

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Introduction

Maturity onset diabetes of the young (MODY) is rare, but a correct diagnosis can have major therapeutic, implications for the patient and the family. Prevalence in the UAE population is unknown and current figures (<10 in our cohort) are likely to be an underestimate of actual number of patients. This study aims to identify patients with MODY from a large database of individuals with diabetes mellitus.

Methods

Patients likely to have MODY (age of onset of diabetes <30 years, BMI <25 kg/m², negative GAD and IA2 antibodies) were selected from the ICLDC database which includes 33,748 patients with diabetes. The MODY probability calculator (University of Exeter) was applied to this cohort. In the absence of family history data two possible scenarios were considered: parents with diabetes and parents without diabetes.

Results

	All patients	Insulin treated	Diet/OHA treated	On insulin within 6 months of diagnosis
n	907	777	130	100
% Female	44.3	47.0	28.5	41.0
Age (years)	22.2 ± 13.5	19.1 ± 11.0	32.1 ± 15.9	22.2 ± 13.5
Age of diabetes onset (years)	13.6 ± 8.9	11.1 ± 7.3	21.1 ± 8.7	13.6 ± 8.9
BMI (kg/m ²)	20.0 ± 4.0	19.8 ± 3.9	20.9 ± 4.9	20.0 ± 4.0
HbA1c (%)	10.0 ± 2.6	10.0 ± 2.4	8.5 ± 2.1	10.0 ± 2.6
HDL (mmol/l)	1.3 ± 0.5	1.4 ± 0.5	1.2 ± 0.3	1.3 ± 0.5

The MODY calculator estimated an average probability of MODY of 82.7% and 68.2% respectively when a positive or negative parental history of diabetes were assumed.

Conclusions

Negative GAD & IA2 antibodies and basic clinical criteria can identify patients with a high probability of MODY which should have further testing to establish the genetic diagnosis.