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Letter to the editors

Maturity-onset diabetes of the young (MODY) at least ten times more common in Europe than previously assumed?

Dear Sir,
From 1986 to 1994 we screened 2,064 diabetic patients (1,798 with non-insulin-dependent (NIDDM) and 266 with insulin-dependent diabetes (IDDM)) in the German district of Hesse. In this group we found 38 patients (22 male, 16 female) fulfilling the criteria for MODY (maturity-onset diabetes of the young) established by Tattersall and Fajans [1] (diagnosis before the age of 25 years and treated successfully with diet or oral drugs for 5 years). All these patients had at least one first-degree relative with diabetes mellitus. MODY has become particularly interesting to study recently because it may serve as a genetic model for NIDDM, a major metabolic disorder rising in incidence worldwide [2, 3].

In 1981 Panzram and Adolph [4] published the results of a survey of 40,927 East German diabetic patients from whom they had collected a subgroup of 58 MODY patients (0.14 %). According to our results MODY seems to be 12.9 times more frequent (1.8 % of all diabetic patients) and even 15 times more frequent with regard to the NIDDM group (2.1 %). Since such a vast difference in epidemiological data from neighbouring areas of Germany appears to be unlikely, MODY may not be quite so rare as previously estimated. These data appear to be not only important for the epidemiologist but also for the patient himself who may seek medical advice concerning family planning, a relevant issue in a highly hereditary disease.

We also found that MODY patients had a much worse diabetes education record compared with IDDM patients with their more dramatic onset of diabetes, mostly also at a young age. Only 10.5 % MODY diabetic patients were adequately educated in the years from 1986–1989 as compared with 27.6 % IDDM patients. During the last 4 years the respective figures have risen to 57.7 % for IDDM patients and only 26.3 % for MODY patients. As education is widely accepted to be the basis of diabetes treatment this moderate improvement cannot be regarded as sufficient.

We conclude that MODY is much more common in central Europe than has been previously assumed and should be better recognised, understood and treated.

Yours sincerely,
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References

1. Tattersall RB, Fajans SS (1975) A difference between the inheritance of classical juvenile onset type diabetes in young people. Diabetes 24: 44–53
2. McCarthy MI, Hitman GA, Shields DC et al. (1994) Family studies of non-insulin-dependent diabetes mellitus in South Indians. Diabetologia 37: 1221–1230
3. Cook JTE, Shields DC, Page RCL et al. (1994) Segregation analysis of NIDDM in Caucasian families. Diabetologia 37: 1231–1240
4. Panzram G, Adolph W (1981) Heterogeneity of maturity onset diabetes at young age (MODY). Lancet 2: 986

Testing parents of NIDDM patients

Dear Sir,
Mitchell et al. [1] have recently reported data which fail to confirm that of a number of other independent research groups who concurred that non-insulin-dependent diabetes mellitus (NIDDM) appears to be more common amongst mothers than fathers of affected individuals [2, 3]. A major drawback of the previous studies has been their retrospective nature, and the attempt by Mitchell et al. [1] to test parents for diabetes is to be commended. This approach is limited by the ability to find available parents since NIDDM is a disease of late onset and many parents will have died. It is not surprising that the paper by Mitchell et al. [1] fails to find evidence for maternal transmission given the small numbers of subjects who were available for study.

Firstly, only 29 unrelated diabetic probands were recruited from San Antonio. Although it is not clear from the paper, we assume the 54 diabetic sibships must also have included some of the 33 randomly ascertained probands. It is vital that all 54 diabetic sibships are separate, not related and belong to different pedigrees. For this to be the case, 25 of the 33 randomly ascertained probands must have led to the discovery of a diabetic sibship. We suspect this may not have been the case and that the 54 diabetic sibships include members from several generations of the same pedigree. If diabetes is either maternally or paternally inherited through a pedigree, counting the same pedigree twice will severely bias the results. In our original pa-

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