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Diabetologia

Letters to the Editor

Diabetes Mellitus: A New Look at Diagnostic Criteria

Sir,

In their recent editorial, Keen, Jarrett and Alberti [1] present arguments for a new definition of diabetes by the oral glucose tolerance test. The present criteria were established in 1964 [2]. As a result of many observations made during the last decade, some of which are presented in this editorial, it has become clear that the blood glucose levels defined at that time were set too low.

The proposals in this editorial not only make a plea for higher blood glucose levels with which to define diabetes, but suggest two other innovations [1] the introduction of an intermediate group of patients with Impaired Glucose Tolerance (IGT); and [2] a change of the glucose load from the present 50 grams to 75 grams. I suggest that adoption of these two recommendations would be both unhelpful and actually disadvantageous.

Few patients would benefit from these proposals, and there is little to suggest that a diagnosis of mild, diet-treated diabetes causes "considerable social and psychological damage." Most diabetics are diagnosed without glucose tolerance testing – at King's College Hospital, of the last 800 patients, under 10% of new diabetics were diagnosed by glucose tolerance test. Borderline observations in older symptomless patients are in practice ignored. The GTT is needed mainly for diagnosis in pregnancy and in younger patients where doubt exists. Of 286 patients diagnosed by GTTs over the years at King's, 60% were under 55 years of age.

In these younger patients a diagnosis of "impaired glucose tolerance" would scarcely be of benefit since some clinical action (i. e. permanent follow-up) is still required, although in this editorial they do not here make it clear what should actually be done about a patient with IGT.

Introduction of an IGT group would bring a trivial advantage to a very few people with respect to driving licence applications, but the only saving is the need to re-apply for a driving licence every 3 years. There is no difficulty for diabetics on diet alone to obtain an ordinary licence, or Public Service Vehicle or Heavy Goods Vehicle at least in the U. K.

It has also been suggested that there may be an insurance benefit if an IGT group is introduced. Many insurance companies follow recommendations in a handbook, published by Mercantile and General Reinsurance, following strict 50 g – GTT criteria when considering their loading policy. Their recommendations already include a narrow intermediate group where the premium weighting is less. Insurance companies would not alter their policies simply because of a change of name (i. e. IGT).

There is another problem if an IGT is introduced: that is in pregnancy. It has taken many years to discover that fetal mortality is increased in patients who have only GTT diabetes. If there is to be a group described as not-diabetic but having IGT, this may easily be ignored by those who are inexperienced in the treatment of diabetic pregnancy.

There is also the problem of the glucose load. There is no simple conversion factor for blood glucose values after different glucose loads. Thus differences are greater in older patients, and those with borderline tests, than in younger ones and those with more normal tests [3]. If the U. K. at present using a 50 g load, and the Americans using mainly a 100 g load, were both to change to a 75 g load, the arrangement would suit neither party and create immense difficulties for any epidemiological work on both sides of the Atlantic. Any agreement to change the load might not be universally adopted, and then the confusion would be even greater. There is already a hint of disagreement on other issues in the footnote to Table 2 in the editorial. We in Britain are still smarting from promises of international agreement with regard to SI units.

If there is to be a new definition for diabetes, it should be to the advantage of patients: but it should also retain sufficient clarity and simplicity for interpretation by both patients and doctors, specialist

and non-specialist. The introduction of two sets of criteria would probably never be grasped by the majority of doctors: even now, few doctors know the criteria for GTT diagnosis of diabetes. There would also be some unwieldy new terms such as "gestational impairment of glucose tolerance" of "latent impairment of glucose tolerance".

I believe that we should retain a simple classification – diabetic or not diabetic, and that the diagnostic criteria for diabetes by oral glucose tolerance test should be set at a higher level, probably between their present value and those currently proposed.

Yours etc.,

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