

## Letters to Editor

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### **Prevalence of non-insulin dependent diabetes mellitus in Indian migrants in Melbourne, Australia, using fasting plasma glucose.**

Ibiebele et al document a high prevalence of diabetes in Indian migrants living in Melbourne.<sup>1</sup> A few additional comments may be of interest. The glycated haemoglobin (HbA<sub>1c</sub>) levels were significantly ( $p < 0.0001$ ) higher when all the Indian men and women were compared with the corresponding Anglo-Celtic group.<sup>1</sup> However, there is no similar comparison between the non-diabetic Indian and Anglo-Celtic populations. This difference in HbA<sub>1c</sub> values could be significant. This prediction is based on the elevated HbA<sub>1c</sub> values in non-diabetic Indians.<sup>1</sup> HbA<sub>1c</sub> values in non-diabetic Indian men were  $5.9 \pm 0.0\%$  and in non-diabetic Indian women:  $5.9 \pm 0.1\%$ . These HbA<sub>1c</sub> values are greater than those for the whole Anglo-Celtic population.<sup>1</sup> In Anglo-Celtic men it is  $5.49 \pm 0.1\%$  and in Anglo-Celtic women it is  $5.44 \pm 0.08\%$ .

The Anglo-Celtic HbA<sub>1c</sub> values will decrease further if any diabetics are excluded. Even as the results stand, the mean HbA<sub>1c</sub> values for both ethnic populations differ by more than four standard deviations. Nevertheless, it is necessary to demonstrate that this difference is actually significant.

The issue of higher HbA<sub>1c</sub> values in non-diabetic Indians is relevant because this index of long-term glucose control may predict vascular risk.<sup>2</sup> This is true even for HbA<sub>1c</sub> values within the

reference range.<sup>2</sup> However, this evidence may be limited to men.<sup>2,3</sup> If indeed the HbA<sub>1c</sub> is significantly higher in the non-diabetic Indian men, then they should have a higher risk of vascular events when compared with Anglo-Celtic men. The HbA<sub>1c</sub> values may reflect the presence of insulin resistance that is commoner in Indians.<sup>4-7</sup>

The observed earlier age of onset of diabetes in Indians<sup>1</sup> is of considerable importance because it will raise clinician awareness of this possibility. This finding also suggests the need for early screening.

The increased prevalence of diabetes in Indians is seen in several countries where they have migrated (e.g. Australia, Fiji, Mauritius, Singapore, South Africa and the UK.)<sup>1,4-7</sup> This observation excludes a crucial aetiological role for local factors and suggests that genetic or cultural factors (including diet) influenced the incidence of diabetes. It follows that similar findings should be reported if migrant Indian populations are studied in other countries (e.g. USA and Canada). Obviously, it is crucial for local clinicians to be aware of these facts.

The findings of Ibiebele et al<sup>1</sup> are of considerable importance to physicians in the UK because we have a big population of Indians.<sup>4-7</sup> Furthermore, although there are differences in the prevalence of diabetes, the findings discussed here probably apply to other South Asians (e.g. from Pakistan or Bangladesh).<sup>6</sup>

## References

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