

iliac revascularisation. A bifurcation graft into the femoral arteries might have relieved the claudication and made the sciatica worse in this case by further diverting blood away from the pelvis and into the legs. We suggest that clinicians should be alerted to the diagnosis in a patient with pain of sciatic distribution related to exercise; poor resting pulses and reflexes may be further reduced after exercise, while a bruit in the region of the groin will be increased.

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Family histories of diabetes mellitus in young African and Indian diabetics

The principal genetic mechanisms in the pathogenesis of diabetes mellitus appear to be different for insulin dependent and non-insulin dependent diabetes.^{1,2} We carried out a study of the prevalence of the disease in first degree relatives of young African and Indian diabetics.

Patients, methods, and results

We studied 118 Africans and 125 Indians who had developed diabetes before the age of 35. Diagnosis of diabetes and classification into insulin dependent and non-insulin dependent disease were based on the criteria recommended by the World Health Organisation.³ The patients with insulin dependent diabetes had always depended on insulin for control of symptoms and prevention of basal ketosis. The family history was obtained by questionnaire and confirmed at subsequent visits: only if a first degree relative was affected was it deemed to be positive. For purposes of comparison 400 African and 450 Indian patients with no history of diabetes who were attending the medical outpatients department were also asked about a family history of diabetes.

A family history of diabetes was more common in both Indian (80%) and African (37%) patients with non-insulin dependent diabetes than in patients with insulin dependent diabetes or controls (table). Of the Indians with non-insulin dependent diabetes, 46 (61%) had at least one parent and 15 (20%) both parents afflicted by the disease. In a third of the propositi at least one sibling was affected. Of the African patients with non-insulin

dependent diabetes who gave a family history, all had one parent who was affected and one had both. In both racial groups all affected relatives also had non-insulin dependent diabetes.

A family history in patients with insulin dependent diabetes was significantly more common in Indians (54%) than Africans (12%) ($p < 0.001$) and in the Indian diabetics than the non-diabetic Indians ($p < 0.0005$). A family history was also more common in the Africans with insulin dependent diabetes than the African controls. In both racial groups, with the exception of three Indians and one African, all patients with insulin dependent diabetes and a family history of diabetes had a relative with non-insulin dependent diabetes.

Comment

The higher prevalence of a family history in Africans and Indians with non-insulin dependent diabetes compared with those with insulin dependent diabetes accords with results of other studies.^{1,2} A family history of non-insulin dependent diabetes appears to be particularly common in young Indians with the disease. Similar findings have been observed in young white patients with non-insulin dependent diabetes.^{4,5} In one study 85% of the young patients with non-insulin dependent diabetes had at least one parent suffering from the disease while 53% had an affected sibling.⁴ Among a group of young Germans with non-insulin dependent diabetes 74% had an affected parent.⁵ Although diabetes in a parent or sibling appears to be less common among Indian or African patients compared with these values, more cases might have been found if glucose tolerance tests had been performed. The data in the Indian patients with non-insulin dependent diabetes are compatible with the view that an autosomal dominant mode of inheritance may play a part.^{1,4}

On the other hand, the presence of a family history of non-insulin dependent diabetes in almost half the Indians with insulin dependent disease is remarkable both because of its usual relative rarity¹ and because of its implication in the pathogenesis of insulin dependent disease. Clearly, if non-insulin dependent diabetes in first degree relatives is considered to be important in the evolution of both non-insulin dependent and insulin dependent disease in the probands then genetic heterogeneity of the disease in the first degree relatives may offer the only rational explanation for the findings observed in this study. Use of more specific markers might help to clarify the role of genetic factors in these two types of diabetes.

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Prevalences of family history in patients and controls, and significance of differences between groups (χ^2 test)

	Insulin dependent diabetics		Non-insulin dependent diabetics		Non-diabetics	
	Africans	Indians	Africans	Indians	Africans	Indians
No of patients	99	50	19	75	400	450
Male:female ratio	15:18	2:3	4:15	7:18		
Mean age (years) at onset of diabetes (range)	23 (0.6-35)	17.5 (1.5-35)	30 (19-35)	26.8 (15-35)		
No (%) with family history of diabetes	12 (12)	27 (54)	7 (37)	60 (80)	5 (2.5)	59 (9.6)