Letters to the Editor

HLA and Maturity Onset Diabetes of the Young

Dear Sir,
HLA factors have been demonstrated in Type 1 (insulin-dependent) diabetic patients [1]. Also, HLA has been involved in Type 2 (non-insulin-dependent) diabetic inheritance [2], especially in patients with recorded anti-islet cell antibodies [3]. A weak linkage has also been described between a putative diabetes gene causing maturity-onset diabetes of the young (MODY) to HLA [4]. Two MODY families were studied (Table 1). All family members were subjected to a glucose tolerance test as described by the National Diabetes Data Group [5]. Patients were typed for HLA-A,B,C,Bw4,Bw6 antigens using our routine 120 sera and a standard microlymphocytotoxicity technique [6]. Figure 1 shows that in family 1, siblings 3 and 4 are HLA identical, but MODY only has one phenotype. Siblings 5 and 6 show a similar situation. In family 2, the three siblings are HLA identical and only siblings 3 and 5 are affected by MODY.

It is clear that MODY does not segregate with HLA haplotypes in our two families. Our results contrast with those found by others [4] and may be due to clinical and genetic heterogeneity in MODY, but are concordant with those reported by Nelson [7].

Table 1. Plasma glucose and insulin levels (fasting and at 2 h after a glucose tolerance test) in the two families studied

	Age (years)	Fasting plasma glucose (mmol/l)	Plasma glucose after 2 h (mmol/l)	Fasting plasma insulin (mU/l)	Plasma insulin after 2 h (mU/l)
Family 1: members					
1	50	7.0	9.1	45	62
2	48	6.3	7.2	37	188
3	15	7.2	7.8	25	109
4	20	4.8	6.0	17	71
5	22	6.7	7.8	17	68
6	24	4.8	4.9	21.5	84
Family 2: members					
1	46	5.5	6.8	30	58
2	40	5.8	11.3	19	60
3	22	5.1	6.8	23	59
4	18	5.8	7.7	26	72
5	9	5.5	10.6	23	112

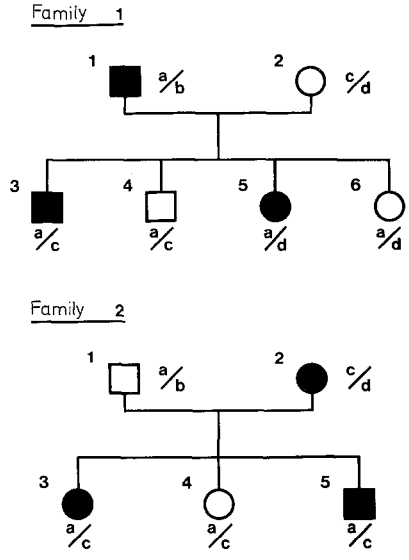

Fig. 1. HLA haplotypes in family 1: *a*=A11, Bw35, Cw4, Bw6. *b*=A3, B8, Bw6. *c*=A1, B17, Bw4. *d*=A3, B7, Bw6. HLA haplotypes in family 2: *a*=Aw30, Bw35, Cw4, Bw6. *b*=A1, B14, Bw6. *c*=Aw23, Bw35, Cw4, Bw6. *d*=Aw23, Bw39, Bw6

Yours sincerely,
A. Arnaiz-Villena, R. Barrio Castellanos, J. Argente Oliver and M. Alonso Blanco

References

1. Svejgaard A, Platz P, Ryder LP (1980) Insulin-dependent diabetes mellitus (joint report). In: Terasaki PI (ed) Histocompatibility testing. UCLA, Tissue Typing Laboratory, California, pp 638–656
2. Arnaiz-Villena A, Rodriguez Córdoba S, Dujoune IL, Regueiro JR, Bootello A, Serrano Rios M (1980) HLA factors in non-insulin-dependent diabetes mellitus. N. Engl J Med 303: 1065 (letter)
3. Morris PJ, Irvine WJ, Gray RS, Duncan LPJ, Vaughan H, Mc Callum FJ, Campbell CJ, Farquhar JW (1976) HLA and pancreatic islet cell antibodies in diabetes. Lancet II: 652–653
4. Barbosa J, King R, Goetz FC, Noreen H, Yuns EJ (1978) HLA in maturity-onset type of hyperglycemia in the young. Arch, Intern Med 138: 90–93
5. National Diabetes Data Group (1979) Classification and diagnosis of diabetes mellitus and other categories of glucose intolerance. Diabetes 28: 1039–1057
6. Mittal KK, Mickey MR, Singal DR, Terasaki PI (1969) Secotyping for hemotransplantation, XVIII. Refinement. Transplantation 6: 904–912
7. Nelson PG (1976) Genetic diabetes non-linked to the HLA locus (short report). Br Med J I: 196–197

Dr. A. Arnaiz-Villena
S. de Inmunologia
Centro Especial Ramón y Cajal,
Carretera Colmenar Km 9, 100
Madrid 34
Spain

Glucose Intolerance in Pregnancy

Dear Sir,
Beard and Hoet in their review article 'Is Gestational Diabetes a Clinical Entity?' (*Diabetologia* (1982) 23: 307–313) express concern that the World Health Authority Expert Authority (sic; presumably the World Health Organisation Expert Committee on Diabetes Mellitus, 2nd Report [1]) recommends "that diagnostic criteria for diabetes should be the same in all adults, pregnant or not" and that it appears "to reject all the evidence" of possible adverse effects upon the fetus of "even a minor disturbance of carbohydrate tolerance". Leaving aside the dubious nature of that evidence, they would, I hope, have discovered their concern unfounded had they read the document in question with a little more care than they quoted its provenance. What the 2nd Report actually recommended was that a standard procedure be adopted for the conduct of the oral glucose tolerance test and for