

Ethnic Differences in the Prevalence of the Metabolic Syndrome in Recently Diagnosed Type 2 Diabetes in the North American Cohort of the ADOPT Study

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Ethnic differences have been reported in the prevalence of the Metabolic Syndrome (MS) (NHANES III) but few data exist in diabetes. Prevalence of MS was assessed by NCEP ATP III criteria in different ethnic groups [Caucasians (Cau; n = 1756), African Americans (Afr-A; n = 164), Asian Americans (Asn-A; n = 74) and Others (principally Hispanic; Oth; n = 215)] of the North American cohort of the ADOPT study. Subjects had recently diagnosed (≤ 3 years) diabetes with a fasting glucose <180 mg/dl at study entry.

	Cau	Afr-A	Asn-A	Oth	P
BMI (kg/m ²)	33.0±6.0	34.5±6.5	28.2±4.7	33.1±6.3	< 0.0001*
HOMA IR (μU/ml*mmol/l) [†]	7.2 (7.0, 7.5)	7.1 (6.4, 7.8)	5.5 (4.8, 6.4)	7.4 (6.7, 8.0)	< 0.0001*
CRP (mg/dl) [†]	0.38 (0.35, 0.41)	0.49 (0.39, 0.61)	0.16 (0.11, 0.20)	0.40 (0.33,0.48)	0.0003*
MS +ve (%)	83.4	75.0	60.8	76.7	< 0.001**
Diabetes (%)	100	100	100	100	
HTN (%)	73.1	78.0	58.1	63.3	< 0.001**
Low HDL (%)	52.7	39.6	41.9	48.8	< 0.01**
High TG (%)	63.4	32.9	48.6	54.0	< 0.001**
Waist Circ (%)	72.9	75.0	43.2	65.6	< 0.001**
All 5 criteria (%)	25.3	12.8	8.1	14.0	< 0.001**

* Ethnic difference by ANOVA adjusted for age and gender; **Chi-square test of association between criterion satisfaction and ethnicity. [†]Geometric mean (95% CI)

The highest rate of MS was in Cau. The pattern of abnormalities differed, with prevalence of all 5 criteria 3-fold higher in Cau than in Asn-A. C-reactive protein (CRP) levels were lowest in Asn-A, possibly reflecting differences in adiposity, or insulin resistance. In conclusion, the marked differences in prevalence of MS, insulin resistance and subclinical inflammation among different ethnic groups may translate into differences in prevalence of cardiovascular disease.