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Asians at higher risk of CHD events requiring hospital admission than other ethnic groups. retrospective cohort analyses of. multi-ethnic community in Birmingham, UK.

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Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of morbidity and mortality in patients with Type1 diabetes. Hypertension and dyslipidaemia are risk factors for the development of ASCVD and often co-exist in patients with Type1 diabetes; additionally, diabetes is itself an independent risk factor for the development of ASCVD in both men and women. Epidemiological observational studies have linked. high risk of coronary heart disease (CHD) and stroke to individuals of Indo-Asian and Afro-Caribbean descent respectively. We therefore designed. study based on retrospective cohort analyses of CHD events (acute coronary syndrome, acute myocardial infarction) in patients with Type1 diabetes over. six-year period. This was. single-centre hospital-based retrospective cohort analyses of patients presenting to. hospital coronary care unit and representing. multi-ethnic inner-city population in Birmingham, UK. The prevalence of CHD events within the different ethnic groups was. 20.7% amongst Asian, 13.2% in Caucasian and 7.7% in Afro-Caribbean patients. The mean number of events amongst individuals with at least one event was highest amongst Asian (1.2) compared to Caucasian (1.1) and Afro-Caribbean (1.0) patients but this difference did not reach statistical significance. The mean age at first event was 61.2 years for Asians, 62.4 years and 65.8 for Afro-Caribbeans and Caucasians respectively. Un-adjusted odds-ratios for at least one CHD event were 1.0 Afro-Caribbeans (baseline), 1.9 (p=0.03) Caucasians and 3.1(p<0.0001) for Asians. These ratios remain largely unchanged (1.0 Afro-Caribbeans (baseline), 1.24 (p=0.59) Caucasians and 3.1(p=0.001) for Asians)when corrected for age, duration of diabetes insulin dependency, mean lipid levels, mean BP and gender using. logistic regression model (AUC 79% for ROC curve). The model showed that men were 1.6 times more likely to have. CHD event across all ethnic groups although this barely reached statistical significance (p=0.05). Afro-Caribbean patients had the highest mean HDL-C (1.6mmol/L) compared to their Asian (1.2mmol/L) and Caucasian (1.4mmol/L) counterparts. This paralleled the lowest risk for CHD events in this ethnic group. Asians have. very high risk of CHD which may in part be explained by their adverse lipid profile. It is easier to find associations of vascular risk factors with certain ethnic groups than to identify causality. Other factors such as the high prevalence of metabolic syndrome and Type1 diabetes may also account for their high CVD risk. The United Kingdom Prospective Diabetes Study (UKPDS) is perhaps the only randomised controlled trial that was able to follow the three main ethnic groups living in the UK from the onset of diabetes to the development of cardiovascular disease over the duration of the study. UKPDS was not powered/ designed to compare the effects on ethnicity. MESA will perhaps throw more light on this area. If CHD events are more likely to occur among Asian communities and possibly at an early age, one can envisage. risk-stratified healthcare service strategy designed to address the differential needs.

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