

## South Asians have higher blood sugar levels than white Europeans, independent of risk factors

A new study from the University of Leicester (Mostafa et al, 2012) has discovered that south Asians (people of Indian, Pakistani, Bangladeshi and Sri Lanka origin) have higher levels of blood sugar than white Europeans independent of risk factors that influence sugar levels.

The study of 4688 white Europeans and 1352 south Asians was led by Dr Samiul A Mostafa, of the University of Leicester, Department of Cardiovascular Sciences. The

team analysed the ADDITION-Leicester study, in which participants underwent oral glucose tolerance testing, and measurement of glycosylated haemoglobin (HbA<sub>1c</sub>) and other risk factors.

According to the study south Asians had higher levels of three measures of blood sugar: HbA<sub>1c</sub> (a measure of blood sugar over 3 months), fasting plasma glucose, and 2-hour plasma glucose which are all used for diagnosis of type 2 diabetes.

Significant associations with HbA<sub>1c</sub> included ethnicity, fasting plasma glucose, 2-hour plasma glucose, and homeostasis model assessment of  $\beta$ -cell function ( $P < 0.001$ ); age and sex ( $P < 0.01$ ); and fasting insulin and potassium ( $P < 0.05$ ). Importantly, these higher levels of sugar markers in south Asians were not accounted for by differences in risk factors that influence diabetes, suggesting they were independently higher.



**Dr Samiul A Mostafa, Clinical Research Fellow in Diabetes and Endocrinology, Leicester Diabetes Centre, Leicester**

## Access to clinical trials drives dramatic increases in survival from childhood cancer

More children are surviving cancer in Britain than ever before according to new research (Stiller et al, 2012). The improvement in survival has been driven by the increasing numbers taking part in clinical trials since 1977 when the UK Children's Cancer Study Group was established.

The UK Children's Cancer Study Group's principal aim was to set up a comprehensive portfolio of national and international trials for the majority of children's cancers. As a result, between 1978 and 2005 two-thirds of children diagnosed with cancer in Britain had a cancer type for which there was an open national or international clinical trial.

During this time, survival for the whole population of affected children increased significantly in all these categories, with the greatest improvements seen in germ cell tumours and hepatoblastoma.

Only 28% of children diagnosed with cancer between 1966 and 1970 survived for 5 years. By 2005 this had increased dramatically to 79%.

Charles Stiller and colleagues analysed data on 25 853 children (66% of all registered childhood cancers) diagnosed before the age of 15 years in Britain during 1978–2005. In total there were 39 067 children with cancer, but this study focused on the two-thirds for whom there was a multi-centre trial of first-line treatment open to entry during a total of at least 10 years within the period of the study.

For each diagnostic category, there was an annual reduction in the risk of death, ranging from 2.7% for rhabdomyosarcoma to 12% for germ cell tumours of the testes and ovaries.

The percentage of children enrolled in trials varied wide-

ly between different cancers and at different times during the study period, but entry rates tended to be higher in more recent times for most cancers.

Mr Stiller, Registry Director at the Childhood Cancer Research Group, University of Oxford and first author of the study, said: 'The results of our study show that improvements in childhood cancer survival match those reported by the relevant clinical trials that were running between 1978 and 2005. During this time there has been an increasing level of participation in trials, with around 90% of all children with many types of cancer enrolled, and this has been facilitated by the organisation of care into specialist children's cancer units.'

Stiller CA, Kroll ME, Pritchard-Jones K (2012) Population survival from childhood cancer in Britain during 1978–2005 by eras of entry to clinical trials. *Ann Oncol* Jul 17 (Epub ahead of print)

Dr Mostafa, a Clinical Research Fellow in Diabetes and Endocrinology based at Leicester Diabetes Centre, said: 'We know type 2 diabetes is more common in south Asians compared to Europeans and is diagnosed at an earlier age. We are trying to explain reasons why this occurs beyond the well known risk factors of diet and physical activity.'

He continued: 'Our study suggests the main measures of glucose used in diagnosis of type 2 diabetes are all higher in south Asians independent of risk factors which cause diabetes such as obesity, blood pressure, smoking and gender. This may explain why diabetes diagnosis is higher in south Asians but more research is required. The findings suggest that south Asians should be monitored more closely for type 2 diabetes.'

Mostafa SA, Davies MJ, Webb DR, Srinivasan BT, Gray LJ, Khunti K (2012) Independent effect of ethnicity on glycemia in South Asians and white Europeans. *Diabetes Care* 35(8): 1746–8