Incidence of Diabetes and Pre-Diabetes in a Selected Urban South Indian Population (CUPS – 19): Role of Pro-insulin

Sir,

I read with great interest Dr. V. Mohan’s excellent article, which is the first of its kind to show the incidence of T2DM in an urban south Indian population. The Indian Diabetes Risk Score (IDRS) using 4 simple parameters – age, family history of T2DM, physical activity and waist circumference was found to be the strongest predictor of the incidence of diabetes – IRDS > 60 being the best predictive indicator of metabolic syndrome and cardiovascular risk in Indians. I suggest that adding pro-insulin / insulin ratio will further strengthen the predictive values of IDRS. When the CUPS study was initiated in 1997 Dr. Mohan was aware of Yudkin’s 1995 observation about the predictive value pf pro-insulin for T2DM.¹ Warham NJ et al (1999) also showed fasting pro-insulin 32-33 split proinsulin as independent predictors of T2DM.² Probably cost considerations did not permit Dr. Mohan to include this most important predictor of T2DM in his prospective study. In 2006, I had emphasized the importance of measuring proinsulin our Mumbai Obesity Pilot Project.³ By pooling the samples the cost of assay can be reduced. I strongly feel that resources can be found if we are determined to utilize maximally all the available tools for our scientific studies, to make them of top quality.

My other comment is about the data on waist circumference and BMI. I suggest that such data should be given as scattegrams which will show the wide scatter, allowing the reader to draw his own inference. Lumping together BMI 21.8 ± 4.1 for normal NGT, 23.5 ± 3.4 for converters to pre-diabetes and 24.4 ± 4.4 for converters to diabetes is to be avoided, similarly expressing waist circumference 74.2 ± 11.9, 78.7 ± 13.7 and 82.2 ± 11.8 is an undesirable lumping of data which masks useful information. Editors in future should insist on data being provided as scatter diagram, for illustrative example please refer to Fig. 5 and Table 1 BMI in T2DM my article “Fat Muscle Component of BMI – relation to hyperinsulinemia.”⁴

RD Lele*

*Hon. Chief Physician and Director, Nuclear Medicine Dept. Jaslok Hospital and Research Centre; Hon. Director of Nuclear Medicine and RIA Dept. Lilavati Hospital and Research Centre; Emeritus Professor of Medicine (for life) and Ex-Dean, Grant Medical Collage and Sir JJ Hospitals, Mumbai; Dean (Academic) All India Institute of Diabetes, Mumbai; Emeritus Professor of the National Academy of Medical Sciences (India).

REFERENCES