Title: A Body Shape Index- Novel and precise marker of Cardiovascular risk in Indian patients with Type 2 Diabetes Mellitus- Evaluation of the Amritsar cohort

Category: Prevention

Abstract

Objective: Obesity, typically quantified in terms of Body Mass Index (BMI) exceeding threshold values, is considered a leading cause of premature death worldwide. It is well established that for the given body size (BMI), that risk is also affected by body shape, particularly as a marker of abdominal fat deposits. ABSI has been also shown to be linearly and positively associated with visceral fat mass. We conducted the study to ascertain its relationship with cardiovascular risk markers in Type 2 Diabetes North Indian Punjabi Population.

Methods: The study comprised of 2288 patients with type 2 diabetes (1006 female/ 1282 male), from the Amritsar cohort, who were classified according to their ABSI z-score. A Body Shape Index (ABSI), which is defined as waist circumference (WC)/(body mass index (BMI)(2/3)×height(1/2)). This is unique as ABSI is positively correlated with visceral adiposity and is supposed to be independent of BMI

Results: 64.3% patients had moderate mortality risk according to ABSI z-score whereas 22. 6% were in high risk category. ABSI z-score was found to be significantly correlated with HbA1C. Our study presents a unique perspective for that the data on Anthropometric as well as metabolic parameters (HbA1c, HDL, LDL, total cholesterol, TG & baPWV (Arterial stiffness index) were correlated to develop it as a predictive marker of mortality, beyond the cardiovascular risk.

Conclusion: ABSI appears to reflect visceral adiposity independently of BMI and to be a substantial marker of cardiovascular risk markers in T2D North Indian Punjabi population from the Amritsar cohort.