# Determination of SRPA and Adiposity Measures and Its Association with Glycemic Status in Type 2 Diabetics Having High Mean HbA1c in a Private Clinic of a City in West India

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## Abstract:

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**Introduction:** Indian type 2 diabetics (T2D) is known for poor disease control on which self-reported physical activity (SRPA) and optimum body composition have positive impact. We determined prevalence of SRPA and general/visceral obesity and its impact on HbAlc-based glycemia.

**Methodology:** By a cross-sectional study conducted on 200 T2Ds in a private clinic, HbAlc-based glycemic status, WHO questionnaire-based SRPA, BMI-based general obesity, and bipolar bioelectrical impedance-based visceral obesity were evaluated. SRPA and obesity were compared and associated with glycaemic status keeping mean HbAlc as cutoff.

**Result:** Mean age, male%, mean duration of T2D, mean BMI, mean HbAlc, and SRPA prevalence were 54 years, 42.5%, 4.82 years, 25.49, 8.69%, and 61.5%, respectively. Comparison of groups based on either SRPA or BMI (cutoff 25) showed better HbAlc with the presence of SRPA and BMI <25. Physical inactivity imposed odds risk of 3.44 for visceral fat (VF)  $\geq$ 10% and odds risk of 2.6 for more than mean HbAlc with statistical significances. VF  $\geq$ 10% imposed odds risk of 4 for higher than mean HbAlc. Physical inactivity and visceral obesity together imposed 1/3rd prevalence of better glycaemic value, while physical activity and controlled visceral obesity yielded %th prevalence of good glycaemic value.

**Conclusion:** In T2D with poor glycaemic status and moderately prevalent physical activity, we found strongly significant association of SRPA and controlled body adiposity with HbAlc-based glycaemic status. It reaffirms physical activity and control of central obesity as forerunners of better glycaemic status and calls for further studies having vertical follow-up.

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