

Sagittal abdominal diameter (SAD) – visceral fat measure and cardiovascular risk predictor

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Abstract

Obesity implies increased body weight due to the enlargement of the adipose tissue to the extent that impairs health. There is a strong correlation between the central (abdominal) type of obesity and the cardiovascular and metabolic diseases. Several anthropometric indicators of abdominal obesity have been developed to measure abdominal adipose tissue mass. Some studies have proved that SAD is a good predictor of abdominal, especially visceral, fat mass, as well as of cardiometabolic risk. Many authors have suggested specific cut-off values for SAD that corresponded with cardiovascular and metabolic risk or with visceral fat area obtained by CT. In order to investigate relationship between SAD and anthropometric and cardiovascular risk factors, we used methodology based on rough set theory applied to table-organized data with producing decision rules in the *If-Then* form. Our study included 1334 subjects aged 43.49 ± 10.43 years. Our results revealed connection between SAD and cardiovascular risk factors which showed dependence on age and nutrition level. We primarily recommend application of SAD in the assessment of the cardiovascular risk in overweight and obese individuals. SAD values ≥ 24.3 cm in overweight and obese subjects older than 41 years should correspond to increased risk, while values < 24.3 cm in overweight subjects younger than 41 years could point to healthy metabolic profile. Screening for body fat distribution by using SAD combined with the examination of the decision rules in obese and preobese persons may be beneficial in identifying high risk patients and prevention of both metabolic syndrome and cardiovascular disease.

Biography

Edita Stokić, MD, PhD, Professor of Endocrinology, Medical Faculty, University of Novi Sad, Serbia. Author/coauthor of 320 publications, coauthor of “Practical guide for obesity treatment”, Practical guide for cardiovascular risk factors treatment” and “Practical guide for treatment lipid and lipoprotein disorders”.

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