Clinical Evaluation of Patients with Premature Canities and it's Association with Metabolic Syndrome

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Abstract

Premature canities may represent a visible marker of systemic oxidative stress and may be associated with metabolic syndrome. This study aimed to evaluate the clinico-epidemiological profile of patients with premature canities and compare the prevalence of metabolic syndrome with healthy controls.This observational case–control study evaluated the clinicoepidemiological profile of premature canities and its association with metabolic syndrome in 240 participants, including 120 patients with premature canities and 120 age- and sex-matched healthy controls attending a tertiary care center. Demographic, clinical, and lifestyle data were collected, and metabolic syndrome was assessed using the NCEP ATP III criteria based on waist circumference, blood pressure, fasting triglycerides, HDL cholesterol, and fasting blood glucose. The study demonstrated a significant male predominance (70.8%), with a mean age of onset of approximately 19.4 years, while 38.3% of patients reported a positive family history. Compared with controls, cases had significantly higher mean waist circumference (84.4 cm vs. 81.75 cm), higher systolic blood pressure, lower mean HDL cholesterol (50.10 mg/dL vs. 53.34 mg/dL), and higher mean triglyceride levels (115.98 mg/dL vs. 103.40 mg/dL). No statistically significant differences were observed in fasting blood glucose or diastolic blood pressure. These findings suggest that premature canities may serve as an early clinical marker of metabolic syndrome, highlighting the importance of timely metabolic screening, lifestyle modification, and early intervention to reduce the future risk of cardiovascular disease and type 2 diabetes mellitus.

Keywords

Premature canities, metabolic syndrome, oxidative stress, dyslipidemia, systolic hypertension.