

T5:P.074

Effectiveness of a multilateral weight reduction conception on cardiovascular risk factors

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Background: This study examines the effects of a combined nutritional procedure in connection with diet and sport instructions on weight reduction and cardiovascular risk factors in obese people.

Methods: A total of 120 overweight and obese subjects (BMI 28.0–35.0 kg/m²) aged 30–60 years performed a 12-week randomised, placebo-controlled, double-blind interventional trial. All subjects consumed a protein-rich formula diet as a meal replacement once a day, additionally one half took two lipid binding tablets (polyglucosamine, verum) daily, while the other half took two placebo tablets. Assessments of weight, waist circumference, bioelectrical impedance analysis and fasting blood sample were done every six weeks. SCORE^{1,2} was used to assess cardiovascular risk and NCEP ATP III 2002³ criteria for definition of metabolic syndrome (MetS).

Results: Data presented relate to an interim analysis of 91 subjects (44 male, 47 female) without deblinding the study. BMI, waist circumference, blood pressure decreased significantly ($P < 0.001$ Student's *t*-test). Significant improvements were seen in blood lipids ($P < 0.05$ Student's *t*-test) except for HDL. MetS prevalence reduced significantly after 12 weeks (42.9% versus 18.7%; chi-square test). Risk assessment using SCORE was comparatively low ($1.2 \pm 1.7\%$) but improved significantly (-0.3% ; $P < 0.001$ Wilcoxon-test) during intervention.

Conclusion: Weight reduction conception was applicable to improve cardiovascular risk factors and MetS prevalence. The calculated SCORE probably underestimated risk of fatal cardiovascular diseases in this collective.

References: 1. Keil *et al.*, *Dt. Ärzteblatt*, 2006; 102, (25): 1808–1812
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The assessment of central adiposity for diagnosis of metabolic syndrome in Mexican adults

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Introduction: The prevalence of metabolic syndrome (MS) in Mexican population is around of 30%. It has been used the WHO and NCEP-ATPIII criteria to evaluate SM. However, it has been recommended to establish the appropriate cut point of adiposity measurements to predict MS in each population. The aim of this study was evaluate what central and total adiposity measurement is the best predictor of the diagnosis of MS among Mexican adults.

Method: One hundred adults aged 20–46 years old participated (50 males and 50 females). The body mass index (BMI), waist circumference (WC), waist-hip ratio (WHR), waist-height ratio (WHeR), conicity index (CI), and intra-abdominal adiposity tissue (IAAT) were compared. Bioelectrical impedance analysis (Inbody 720 analyzer) was used to estimate IAAT. WHO and NCEP-ATPIII criteria were used to diagnose MS. Optimal cut-points, sensitivity and specificity of each adiposity measurements to diagnose MS was evaluated through ROC curves.

Results: The prevalence of MS was 26% with both criteria, while the prevalence of insulin resistance was of 48%. BMI, WC and WHeR were the best adiposity measurements to predict MS. WHR, CI and IAAT were not good predictors. BMI was good to predict insulin resistance. No adiposity measurements predicted hyperglucemia and low HDL concentration. Using the WC, the best cut-off-point were 83 cm in women and 93 cm in men.

Conclusions: The prevalence of insulin resistance was higher than MS prevalence. The results showed that commonly adiposity measurements can be used to diagnose MS in Mexican adults.

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Weight loss and skin manifestations in obese patients with psoriasis – A controlled randomized cross-over study

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Introduction: Psoriasis is a chronic inflammatory skin disease associated with obesity, the metabolic syndrome and cardiovascular disease. Obesity is also a risk factor for development and severity of psoriasis. However no controlled trial has studied the effect of weight reduction on psoriasis severity. The aim of this ongoing controlled randomized trial is to examine, if a weight loss reduces the cutaneous manifestations and risk markers of co-morbidity in patients with psoriasis.

Methods: A total of 60 obese patients with psoriasis will be included (BMI > 27 kg/m²). The intervention consists of eight weeks LCD, 800 kcal/day, followed by eight weeks high-protein, energy-restricted diet, 1200 kcal/day, and one year follow-up. The control group will cross-over to intervention after 16 weeks on a habitual diet and the same number of examinations. The primary outcome is the Psoriasis Area Severity Index (PASI). Secondary outcome measures include body composition (DXA), lipid fractions, inflammatory markers and peripheral arterial tonometry, which is a marker of early-stage atherosclerosis.

Results: At present, 11 patients has finished the first 16 weeks of the program. Median weight loss in the intervention group was 24.3 kg (8.2–38.5) kg, 18% of body weight, compared to 1.1 kg (–2.4–3.1) kg, 1% of body weight in the control group, $P < 0.05$. Waist circumference was reduced 20.8 cm (7.0–29.0) cm, compared to 3.3 cm (2.0–7.1) cm, $P < 0.05$.

Conclusion: Obese psoriatic patients achieve great weight losses on our program. It is however too early, to evaluate the effect on the cutaneous manifestations and risks of co-morbidity.

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Study regarding the relationship between cardiovascular risk factors and somatometric parameters at young obese

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Introduction: The aim of this study is to establish the relation between some somatometric parameters and cardio-metabolic risk at young obese.

Methods: The study group was formed by 67 students (21.56 ± 3.41 years; 24 males and 43 females) with BMI over 30 kg/sqm (31.63 ± 7.05 kg/sqm). The assessment of the subjects relies upon the somatometric measurements (sagittal abdominal diameter-SAD, waist circumference, waist-to-hip ratio WHR); the body composition was assessed with a bioelectrical impedance device; the cardio-metabolic risk correlated to obesity was accomplished through assessing the glycemc and lipidic profile (the triglyceride amount, the