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Latest Publications You Should Not Miss

Hsu CH, Liao YL, Lin SC, Tsai TH, Huang CJ, Chou P:
Does supplementation with green tea extract improve insulin resistance in obese type 2 diabetics?
A randomized, double-blind, and placebo-controlled clinical trial. Altern Med Rev 2011;16:157–163.

Background: Green tea is one of the most popular beverages in the world. It is believed to have beneficial effects in the prevention and treatment of many diseases, one of which is type 2 diabetes. The aim of the study is to examine the effect of a decaffeinated green tea extract (GTE) providing a daily dose of 856 mg of epigallocatechin gallate (EGCG) on obese individuals with type 2 diabetes.

Materials and Methods: The clinical trial was a randomized, double-blind, placebo-controlled clinical trial conducted from December 2007 through November 2008. The subjects were randomly assigned to either receive 1,500 mg of a decaffeinated GTE or placebo daily for 16 weeks. Sixty-eight of 80 subjects, ages 20–65 years with BMI > 25 kg/m² and type 2 diabetes for more than one year, completed this study. Homeostasis model assessment for insulin resistance (HOMA-IR) was used as the major outcome measurement. At baseline and after 16 weeks of treatment, anthropometric measurements, fasting glucose, hemoglobin A1C percent (HbA1C), hormone peptides, and plasma lipoproteins were measured from both groups.

Results: No statistically significant differences were detected between the decaffeinated GTE and placebo groups in any measured variable. A statistically significant within-group 0.4-percent reduction in HbA1C (from 8.4 to 8.0%) was observed after GTE treatment compared to baseline. Within-group comparison also revealed that the GTE group had significant reductions in waist circumference (WC), HOMA-IR index, and insulin level, and a significant increase in the level of ghrelin. Within-group comparison of those in the placebo group showed a significant increase in the level of ghrelin.

Conclusion: This study found no statistical difference in any measured variable between the decaffeinated GTE and placebo groups; however, there were some statistically significant within-group changes detected. More research is required to determine whether a decaffeinated GTE standardized for EGCG content will provide any clinical benefits in obese individuals with type 2 diabetes. Clinical Trial Registration NO: NCT00567905.

Issa C, Darmon N, Salameh P, Maillot M, Batal M, Lairon D:
A Mediterranean diet pattern with low consumption of liquid sweets and refined cereals is negatively associated with adiposity in adults from rural Lebanon. Int J Obes 2011;35:251–258.

Background: The beneficial impact of the traditional Mediterranean diet pattern on adiposity is still under debate, and this has never been assessed in a developing Mediterranean country.

Objectives: To assess the relationships between adherence to a traditional Mediterranean diet and adiposity indexes, that is, body mass index (BMI) and waist circumference (WC), in a sample from rural Lebanon.

Design: A sample of 798 adults, aged 40–60 years, was selected in continental rural areas of Lebanon for a cross-sectional study. The questionnaire included socio-demographic, anthropometric and dietary sections. The daily consumption frequencies of selected food groups, categorized as positive or negative components, were calculated based on a food frequency questionnaire. Adherence to the Mediterranean diet was assessed using six a priori scores; including the widely used Mediterranean diet score (MDS). Associations between diet scores and BMI and WC were assessed.

Results: Overall, the diet of the study sample only partially matched the traditional Mediterranean diet. A total of 17.0% of men and 33.7% women were obese. The MDS was negatively associated ($P < 0.05$) with WC, but not BMI, in men and women. The constructed composite Mediterranean score combining positive components of the diet (whole cereals, vegetables, legumes and fruit, olive oil and fish) and negative components adapted to this sample (refined cereals and pastries, and liquid sweets) was consistently and negatively associated with both BMI and WC for men and women in multivariate models. A 2-point increase in that score was associated with a decrease in BMI of 0.51 and 0.78 kg m⁻² and a decrease in WC of 2.77 and 4.76 cm in men and women, respectively.

Conclusion: The results demonstrate that a Mediterranean diet is negatively associated with obesity and visceral adiposity in a rural population of a developing Mediterranean country.

Kaczorowski J, Chambers LW, Dolovich L, Paterson JM, Karwalajtys T, Gierman T, Farrell B, McDonough B, Thabane L, Tu K, Zagorski B, Goeree R, Levitt CA, Hogg W, Laryea S, Carter MA, Cross D, Sabaldt RJ: Improving cardiovascular health at population level: 39 community cluster randomised trial of Cardiovascular Health Awareness Program (CHAP). *BMJ* 2011;342:d442.

Objective: To evaluate the effectiveness of the community based Cardiovascular Health Awareness Program (CHAP) on morbidity from cardiovascular disease.

Design: Community cluster randomised trial.

Setting: 39 mid-sized communities in Ontario, Canada, stratified by location and population size.

Participants: Community dwelling residents aged 65 years or over, family physicians, pharmacists, volunteers, community nurses, and local lead organisations.

Intervention: Communities were randomised to receive CHAP (n = 20) or no intervention (n = 19). In CHAP communities, residents aged 65 or over were invited to attend volunteer run cardiovascular risk assessment and education sessions held in community based pharmacies over a 10 week period; automated blood pressure readings and self reported risk factor data were collected and shared with participants and their family physicians and pharmacists.

Main Outcome Measure: Composite of hospital admissions for acute myocardial infarction, stroke, and congestive heart failure among all community residents aged 65 and over in the year before compared with the year after implementation of CHAP.

Results: All 20 intervention communities successfully implemented CHAP. A total of 1,265 three hour long sessions were held in 129/145 (89%) pharmacies during the 10 week programme. 15,889 unique participants had a total of 27,358 cardiovascular assessments with the assistance of 577 peer volunteers. After adjustment for hospital admission rates in the year before the intervention, CHAP was associated with a 9% relative reduction in the composite end point (rate ratio 0.91, 95% confidence interval 0.86 to 0.97; P = 0.002) or 3.02 fewer annual hospital admissions for cardiovascular disease per 1,000 people aged 65 and over. Statistically significant reductions favouring the intervention communities were seen in hospital admissions for acute myocardial infarction (rate ratio 0.87, 0.79 to 0.97; P = 0.008) and congestive heart failure (0.90, 0.81 to 0.99; P = 0.029) but not for stroke (0.99, 0.88 to 1.12; P = 0.89).

Conclusions: A collaborative, multi-pronged, community based health promotion and prevention programme targeted at older adults can reduce cardiovascular morbidity at the population level. Trial registration Current controlled trials ISRCTN50550004.

Luley C, Blaika A, Reschke K, Klose S, Westphal S: Weight loss in obese patients with type 2 diabetes: effects of telemonitoring plus a diet combination – The Active Body Control (ABC) Program. *Diabetes Res Clin Pract* 2010;91:286–292.

Aims: We evaluate the efficacy of the 'Active Body Control (ABC) Program' for weight reduction in patients with type 2 diabetes.

Methods: The ABC program combines telemonitoring of the physical activity with a low-calorie diet also preferring carbohydrates with low glycemic indexes. In this 6-month, randomized, clinical trial 35 patients (aged 57 ± 9 years; BMI = 35.3 ± 5.7 kg/m²) were treated according to the

ABC program and 35 control patients (aged 58 ± 7 years; BMI = 34.8 ± 5.9 kg/m²) received standard therapy.

Results: After 6 months the mean weight loss in the intervention group was 11.8 kg ± 8.0 kg. Glucose and HbA1c were lowered by respectively 1.0 mmol/l and 0.8 percentage points (p = 0.000, respectively). The proportion of patients with HbA1c > 7% fell from 57% to 26%. Antidiabetic drugs were discontinued in 13 patients (39%) and reduced in 14 (42%). The reduction of costs on medication per patient was € 83 in 6 months. In the control group, there were no relevant changes in body weight, laboratory values or drug treatment.

Conclusions: The ABC program effectively lowers body weight, Hb1Ac and antidiabetic drug use in patients with type 2 diabetes.

Soliah LAL: The role of optimism regarding nutrition and health behavior. *Am J Lifestyle Med* 2011;5:63.

This article summarizes the relationships among optimism, nutrition, and health behavior. The benefits from optimism are addressed, optimism is defined, and measurement scales for testing optimism are presented. The purpose of this article is to review primary research studies and clarify the relationship between optimism and nutrition-related health behaviors. The literature offers confirmatory evidence that optimism enhances mental and physical well-being. Food selection decisions and the role of optimism are explained. Optimism increases the likelihood of making healthy food choices and living a healthier life. Finally, several reasons are proposed for explaining why optimism is overwhelmingly beneficial for physical and mental health.

Wong W, Lam LKC, Li R, Ho SH, Fai LK, Li Z: A comparison of the effectiveness between Western medicine and Chinese medicine outpatient consultations in primary care. *Complement Ther Med* 2011;19:264–275.

Background: Traditional Chinese medicine (TCM) plays an important role in the primary care system in many places, but research evidence on its effectiveness is largely lacking. The aim of the present study was to compare the effectiveness between TCM and Western medicine (WM) consultations in primary care.

Objectives: To evaluate whether medical consultations could improve the quality of life and health condition of patients in primary care and to find out whether there was any difference in the effectiveness between TCM and WM.

Design, Setting and Subjects: This was a prospective, longitudinal study on 290 patients of one TCM public and 841 patients of two WM general outpatient clinics (GOPC) in Hong Kong when they consulted for an episodic illness.

Methods: All patients attending a TCM GOPC in TWH, and the two WM GOPC (TWH and ALC), who fulfilled the inclusion criteria were invited to participate. Each patient answered a structured questionnaire on the presenting complaint, socio-demography, chronic morbidity and service utilization, the Chinese Quality of Life instrument (ChQOL) and the SF-36V2 Health Survey immediately before and two weeks after the doctor consultation. The Global Rating on change Scale (GRS) was also administered in the week 2 assessment.

Outcome Measures: The primary outcomes were changes in the ChQOL and SF-36V2 HRQOL scores. Secondary outcomes included the GRS score. The significance of the change within individual were tested by paired t-tests. The differences in change in scores between WM and TCM were tested by independent sample-t-tests or chi-square, as appro-

priate. Multivariate regressions were used to determine the independent effect of type of medicine on the change in HRQOL scores.

Results: Mean ChQOL and SF-36V2 scores of subjects improved significantly two weeks after TCM or WM consultations in all domains except for the Physical form domain of ChQOL. The greatest improvements were found in the SF-36V2 physical-health related domains. 78% TCM clinics and 71% of subjects WM clinics reported an improvement in GRS. The proportion of subjects who had improvement in HRQOL

scores were lower among subjects consulting the WM clinic (72.3%) than those consulting TCM clinics (100%) but the difference was not significant after correction for baseline scores.

Conclusions: Both TCM and WM consultations were associated with significant improvement in HRQOL in over 90% of patients. There was no significant difference between the effectiveness of TCM and WM consultations. The results support the role of TCM as an alternative primary care service in Hong Kong.