

rats was confirmed through biochemical and histopathological alterations of the intrauterine environment proven by placental dysfunction and the reduced lifespan of the descendants. Considering that, we recommend PUFA supplementation in every pregnancy complicated by obesity.

P122-F | Micronutrient intake adequacy and mortality risk in the PREDIMED study

I. Falcón-García*; A. Ortiz-Andrellucchi*[†]; J. Álvarez-Pérez*[†]; R. Estruch[†]; M.A. Martínez-González[†]; D. Corella[†]; J. Salas-Salvadó[†]; M. Fito[†]; H. Schroder[†]; E. Toledo[†]; R.M. Lamuela-Raventós[†]; E. Ros[†]; F. Arós[†]; M. Fiol[†]; J. Lapetra[†]; M.A. Muñoz[†]; E. Gómez-Gracia[†]; J. Tur[†]; X. Pintó[†]; V. Ruiz-Gutiérrez[†]; M.P. Portillo-Baquedano[†]; L. Serra-Majem*[†]; PREDIMED Study Investigators

*Research Institute of Biomedical and Health Sciences Department of Clinical Sciences, University of Las Palmas de Gran Canaria, Las Palmas, Canary Islands, Spain; [†]Ciber Obn Physiopathology of Obesity and Nutrition, Institute of Health "Carlos III", Madrid, Spain

Background: Limited prospective studies have examined the association between micronutrient intake adequacy and mortality in general population, previous studies have evaluated such associations taking into consideration participants with specific pathologies or critical conditions. We aimed to prospectively assess the association between micronutrient intake adequacy and all-cause, cardiovascular and cancer-related mortality.

Material and methods: The PREDIMED trial is a randomized, controlled trial conducted in Spain from 2003 to 2011 with 7447 participants at high risk for CVD, aged 55 to 80 years. In a post hoc analysis, we assessed the micronutrient intake adequacy for vitamins B1, B2, B6, B12, C, D, E, folic acid, potassium, iron, magnesium, phosphorus and calcium at baseline. Inadequate intake for each nutrient was defined when the intake of the nutrient was below the estimated average requirements (EAR) if available or below the 50% of the adequate intake level for potassium (EAR was not available). We compared participants with inadequate intake for 2, 3 and ≥ 4 nutrients vs those with one nutrient or none. Main outcomes were all-cause, cancer and cardiovascular mortality and multivariable-adjusted Cox regression models were fitted to estimate hazard ratios (HR, 95% CI).

Results: A total of 402 deaths were recorded after a median follow-up of 4.8 years. Multivariable-adjusted models revealed no statistically significant difference between micronutrient inadequate intakes and all-cause mortality (≥ 4 micronutrients inadequacy vs 0–1 micronutrients inadequacy ref HR 1.44; 95% CI 0.99–2.11) neither for cancer and cardiovascular mortality.

Conclusions: No statistically significant association was found between micronutrient intake adequacy and all-cause, cancer, and cardiovascular mortality in elderly subjects at high cardiovascular risk.

P123-F | Association between dairy foods consumption and total and cardiovascular mortality in the PREDIMED study

A. Ortiz-Andrellucchi*[†]; A. Sánchez-Villegas*[†]; P. Henríquez-Sánchez*[†]; R. Estruch[†]; M.A. Martínez-González[†]; D. Corella[†]; J. Salas-Salvadó[†]; M. Fito[†]; H. Schroder[†]; E. Toledo[†]; R.M. Lamuela-Raventós[†]; E. Ros[†]; F. Arós[†]; M. Fiol[†]; J. Lapetra[†]; M.A. Muñoz[†]; E. Gómez-Gracia[†]; J. Tur[†]; X. Pintó[†]; V. Ruiz-Gutiérrez[†]; M.P. Portillo-Baquedano[†]; L. Serra-Majem*[†]; PREDIMED Study Investigators

*Research Institute of Biomedical and Health Sciences, Department of Clinical Sciences, University of Las Palmas de Gran Canaria, Las Palmas, Canary Islands, Spain; [†]Ciber Obn Physiopathology of Obesity and Nutrition, Institute of Health "Carlos III", Madrid, Spain

Background: According to several studies, the dairy products, one of the most consumed foods and rich in many nutrients, does not present a conclusive relationship with cardiovascular disease. This study aims to examine the association of dairy foods consumption with all-cause and cardiovascular mortality in a population at high risk for cardiovascular disease included in the PREDIMED study.

Material and methods: This study corresponds to a prospective and observational cohort study carried out in the framework of the clinical trial PREDIMED. A total of 7447 participants aged between 55 and 80 for men and 60 and 80 for women with cardiovascular risk factors, but without cardiovascular disease at the beginning of the study. The data were obtained from questionnaires and/or interviews during the study follow-up period. Four different Cox regression models were used to assess the risks of mortality as a function of the quartiles of intake of dairy products, estimating reasons of risk (HR, 95% CI).

Results: The total number of deaths during the follow-up period was 292, of which 72 were due to cardiovascular causes. Total consumption of dairy products was not related to all-cause and cardiovascular mortality. Consumption of full-fat dairy products, comparing the highest and the lowest intakes, was associated with an increased risk of 67% of all-cause mortality (HR: 1.67, 95% CI: 1.18–2.37) and a 137% of cardiovascular mortality (HR: 2.37, 95% CI: 1.23–4.57). Intake of low-fat dairy products, comparing the highest with the lowest quartile of intake, was associated with a risk reduction of 37% of all-cause mortality (HR: 0.63, 95% CI: 0.45–0.88) and a 59% of cardiovascular mortality (HR: 0.41; 95% CI: 0.21–0.80).

Conclusions: Intake of full-fat dairy products was associated with an increase in all-cause and CVD mortality, while the low-fat dairy consumption was related to a protective association.

P124-F | The A-Body-Shape-Index and Type 2 diabetes are mutually independent predictors of cardiovascular events risk in angiographed coronary patients

A. Vonbank^{*,†,‡,§}, C.H. Saely^{*,†,‡,§}, C. Lins[¶], D. Zanolin^{*}; A. Leiberer^{*,‡}, A. Mader^{*,†,‡}, B. Larcher^{*,†,‡}, A. Muendlein^{*,‡}, H. Drexel^{*,‡,§,***}

^{*}Vorarlberg Institute for Vascular Investigation and Treatment (VIVIT), Feldkirch, Austria; [†]Department of Medicine I, Academic Teaching Hospital Feldkirch, Feldkirch, Austria; [‡]Private University of the Principality of Liechtenstein, Triesen, Liechtenstein; [§]Division of Angiology, Swiss Cardiovascular Center, Berne, Switzerland; [¶]Kantonsspital St. Gallen, Switzerland; ^{**}Drexel University College of Medicine, Philadelphia, United States

Background: The A-Body-Shape-Index (ABSI) is calculated based on waist circumference, height and BMI and provides a measure of visceral adiposity. In the general population, this index has been associated with premature mortality. Its power to predict cardiovascular events in high-risk patients is not known and is addressed in the present study.

Material and methods: We prospectively investigated a large series of 1618 patients undergoing coronary angiography for the evaluation of established or suspected coronary artery disease over 6.4 ± 3.2 years.

Results: At baseline, ABSI scores were significantly higher in patients with T2DM ($n = 464$) than in non-diabetic subjects (14.1 ± 1.3 vs 13.9 ± 1.3 ; $P = 0.003$). During follow-up, a total of 494 cardiovascular events were recorded. Cardiovascular event risk was significantly higher in patients with T2DM than in non-diabetic subjects (39.1% vs 27.8% ; $P < 0.001$), and in univariate analysis the ABSI significantly predicted cardiovascular events (HR 1.15 [1.06–1.25]; $P = 0.001$). In multivariate analyses, both T2DM and ABSI proved independently predictive of cardiovascular events, with standardized adjusted HRs of 1.49 [1.23–1.81]; $P < 0.001$ and 1.13 [1.04–1.22]; $P = 0.004$, respectively.

Conclusion: We conclude that ABSI and T2DM are mutually independent predictors of cardiovascular events in angiographed coronary patients.

P125-F | Visceral adiposity is a significantly stronger predictor of diabetes incidence in men than in women

A. Mader^{*,†,‡}

^{*}Vorarlberg Institute for Vascular Investigation and Treatment (VIVIT), Feldkirch, Austria; [†]Private University of the Principality of Liechtenstein, Triesen, Liechtenstein; [‡]Department of Medicine I, Academic Teaching Hospital Feldkirch, Feldkirch, Austria

Background: Visceral adiposity is a paramount risk factor for the development of type 2 diabetes. Whether it equally increases diabetes risk in men and in women is not known and is addressed in the present study.

Material and methods: We prospectively recorded diabetes incidence in a large high-risk cohort of 1142 nondiabetic patients, including 755 men and 387 women who were undergoing coronary angiography for the evaluation of established or suspected coronary artery disease. Visceral adiposity was measured with the validated visceral adiposity index using waist circumference, serum triglycerides, age and gender to diagnose this metabolic abnormality; diabetes was diagnosed according to ADA criteria.

Results: At baseline, visceral adiposity did not differ significantly between men and women ($P = 0.247$). Prospectively, 133 (10.4%) of our patients newly developed diabetes during a follow-up period of 3.7 ± 0.9 years. Visceral adiposity significantly predicted the incidence of diabetes in men but not in women both univariately (ORs 1.71 [1.40–2.10]; $P < 0.001$ and 1.09 [0.81–1.49]; $P = 0.565$, respectively) and after multivariate adjustment including fasting plasma glucose (ORs 1.56 [1.24–1.97]; $P < 0.001$ and 1.05 [0.75–1.46]; $P = 0.790$, respectively). Interaction terms visceral adiposity x gender were significant both for univariate and for multivariate analyses ($P < 0.001$ and $P = 0.017$, respectively), indicating that visceral adiposity was a significantly stronger predictor of diabetes among men than among women.

Conclusion: We conclude that in angiographed coronary patients visceral adiposity is a significantly stronger predictor of diabetes incidence in men than in women. Miscellaneous Medical Topics

P126-F | Tension-type headache with myogenic component in adolescents treated by non-pharmacological method

O. Esin^{*}; R. Esin^{*,†}; R. Shamsutdinova^{*}; E. Gorobets^{*}; R. Gamirova^{*,†}

^{*}Kazan (Volga region) Federal University, Kazan, Russian Federation; [†]Kazan State Medical Academy, Kazan, Russian Federation