Pilot nutritional study in mature professional women in Madrid, Spain

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The aim of the study was to examine the nutrient intake in urban native Spanish mature women and its relationship with analytical variables. Participants were 23 volunteer females. The mean age of the participants was 46.5±5.6 years (58-41). The survey was carried out in 2015. A nutritional study has been realized on the quality of the diet in a pilot sample of 23 women in Madrid (40-58 years) by means of questionnaires of frequency of consumption of three days. Likewise, the ingestion of nutrients and the index of healthy nourishment (IAS) were determined using the program of nutrition DIAL®. Anthropometric measurement was performed, we used a Tanita TBF 300 GS to measure the body fat. Blood and urine samples were also taken. Data were analyzed using SPSS 21. Studied women consumed Mediterranean diet, and all were under diet. BMI (kg/m²) was 26.8±4.1 and percent of body fat was 36±3.3 representative of obesity. The average energy intake was 1807.26±451.43 kcal, with total protein percent Energy (E) intake was 16.7% and total fat %E was 41.4±6.3 (12.9±2.83 SFA, 18.5±3.89 MUFA and 5.2±3.33 PUFA as %E) and 5.02±6.77 %E of alcohol. Low trans fatty acid levels was reported to be 0.09 g/day and not really high dietetic cholesterol intake was observed (303.8 mg/day). Finally, the diet quality was good. Average daily intakes of dietary fiber, calcium, vitamin A, vitamin D, vitamin C and vitamin E, folic acid, selenium and sodium were 19.98 g, 755.64 mg, 1004.23 mg, 9.05 µg, 140.96 mg, 8.45 mg, 281.18 µg, 90.58 µg, and 2193.19 mg. The vitamin E (mg)/PUFA (g) was 0.70 and vitamin B6 (mg)/protein (g) was 0.03. Our results advise a decrease in total protein, fat and SFA, in contrast, energy intake and consumption of dietetic fiber, folic acid and calcium should be increased in the study population. The diet quality was acceptable. It can be concluded that in the pilot study we observed a dietary imbalance in women. From these results we may highlight that the intake of fat, carbohydrates and fiber does not meet the established recommendations for Spain. Same applies also to folate as well as to calcium and iron. We found low vitamin D 25 (OH) serum levels in all women below 30 ng/mL, further research is necessary to better understand the optimal vitamin D concentration for promoting health in mature women. Further research can be used for comparing the results with other populations. The unfavorable lifestyle of the great majority on mature women may have implications during the elderly. Age and profession oriented nutrition intervention programs should be promoted to encourage healthy dietary habits in order to prevent nutrition associated diseases in a future. As well as promote physical activity to prevent future nutrition related health problems.

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