Nutrition in the prevention of dementia

Cordula Haidenthaller, 0805772

Introduction: The prevalence of dementia with all of its subtypes is rising continuously. As age is the main risk factor, the demographic development will lead to an increasing number of incidence and prevalence. The cure of dementia is not possible until today. The symptoms can only be diminished through drug therapy. Because of this the question of a possible prevention through nutrition was in focus of the research. In the beginning a short general part defines dementia and the subtypes and gives the latest data of epidemiology. Furthermore the risk factors are described together with the possible influence of nutrition on them. The main part presents in detail the present scientific knowledge of the role of the three most frequently investigated nutrients in the primary prevention of dementia: lipids, antioxidants and the homocysteine related vitamins. To not only present single nutrients the Mediterranean diet will be highlighted in relation to the prevention of dementia.

Materials and methods: The literature research outcome in July 2011 in Pubmed and Scopus was 1.374 hits for “dementia” and “nutrition”. A volume limitation in evidence (only reviews), content (only regarding prevention), language (only English and German) and time (only the last two years) brought an output of finally 71 results. After a detailed evaluation 15 of these papers have been selected.

Results and discussion: Because of the rising number of patients with dementia, especially Alzheimer’s disease, and the missing success in therapy until today, prevention is getting more and more important. Various risk factors, especially cardio-vascular risk factors, are associated with a higher risk to suffer from dementia. Nutrition can have a possible influence on these risk factors. The understanding of the influence of nutrition on dementia is still in the beginning. However, a rising number of epidemiologic studies show, that there is a strong relationship between diet and dementia. Whereas saturated fatty acids and a high cholesterol blood level are associated with a higher risk of dementia, the intake of several protective nutrition compounds like n-3 fatty acids (especially DHA) and antioxidants like vitamin-E, seem to reduce the dementia risk. These should be consumed naturally through food instead of supplements. A poor evidence for the homocysteine-related vitamins in the prevention of dementia doesn’t allow a recommendation today. More promising is the data for the protective effect of the Mediterranean diet. A large number of studies show a positive relationship regarding dementia as well as the general health status. As there is no disadvantage to stick to a healthy diet, this recommendation can be given safely, while waiting for further results from urgently required large studies with a standardisation in design.

Conclusion: At the moment the data for nutrition in the prevention of dementia is very poor and the study outcomes are often conflicting. No secure recommendation can be given until now than stick to a healthy diet based on the Mediterranean diet. Of course nutrition is only a very small part in the prevention of dementia beside preventive interventions like cognitive, social and physical activity. In the most optimistic view, dementia could be delayed or even prevented by these interventions. At worst, people will improve their overall health, especially their cardiovascular health, and enjoy a more cognitively and socially engaging life.
References:


