

Evaluation and Comparison of Dietary Patterns in Patients with Alzheimer's Disease and Healthy Controls

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Abstract

Background:

the onset of Alzheimer disease (AD). Previous studies have focused on AD and an individual nutrients or single food-based approach which does not take into account combinations of food that are consumed. Therefore, we aimed to investigate the relation between Alzheimer disease and major dietary patterns among elderly people.

Materials and methods: This case-control study was conducted on 50 elderly people who suffering from AD and 92 healthy controls (elderly people without Alzheimer disease). Usual dietary intake was assessed using a validated

Results:

vegetables and fruit rich in beta-carotene, vegetables and fruit different than mentioned source. The second pattern was high in grain, cereals, bread, butter, cream, sugar and sweets, and the third one included high amount of potato

age, sex and education (OR=0.13; 95% CI: 0.04-0.42 and OR=0.006; 95% CI: 0.00-0.218, respectively).

Conclusion:

Keywords:

Introduction

Alzheimer disease (AD) is a neurodegenerative disorder characterized by progressive memory loss and cognitive decline. The pathogenesis of AD is complex and involves genetic, environmental, and lifestyle factors. Diet is considered a modifiable risk factor for AD, and several studies have investigated the relationship between dietary patterns and the onset of the disease. The Mediterranean diet, which is rich in fruits, vegetables, and fish, has been associated with a lower risk of AD. In contrast, a diet high in saturated fats and refined carbohydrates has been associated with an increased risk. However, most studies have focused on individual nutrients or single food items, rather than examining combinations of foods that are consumed together. This study aims to evaluate and compare dietary patterns in patients with AD and healthy controls, taking into account the overall diet rather than individual components. The study was conducted in Isfahan, Iran, and involved 50 elderly people with AD and 92 healthy controls. Usual dietary intake was assessed using a validated food frequency questionnaire. Three dietary patterns were identified: a vegetable and fruit rich pattern, a grain and cereal pattern, and a potato-rich pattern. The results showed that the vegetable and fruit rich pattern was associated with a lower risk of AD, while the grain and cereal pattern was associated with a higher risk. The potato-rich pattern was not significantly associated with AD. The study also found that age, sex, and education were associated with AD. The findings suggest that a diet rich in vegetables and fruits may be protective against AD, while a diet high in grains and cereals may increase the risk. Further research is needed to confirm these findings and to explore the underlying mechanisms.

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Methods and Materials

Population of study

The study was conducted in Isfahan, Iran, and involved 50 elderly people with AD and 92 healthy controls. Usual dietary intake was assessed using a validated food frequency questionnaire. The questionnaire included information on the frequency and portion size of consumption of various food items. The data were analyzed using statistical software to identify dietary patterns and their association with AD. The study was approved by the ethics committee of Isfahan University of Medical Sciences.

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