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Mediterranean diet and its benefits in humans: Alzheimer's disease patients

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Abstract

Neurodegenerative illnesses, such as Alzheimer's disease and Parkinson's, have been study strongly in the last six decades, but protection by a good nutrition are poorly study and only in the last decade. Scientifics around the world have study Mediterranean diet because of its possible benefits. Special components such as curcumine, phytoestrogens, olive oil and others have been study, but how different components can help people to retard or stop neuro-degeneration will be study in the next years. Using plasma and cerebrospinal fluid from human Mediterranean people with Alzheimer's disease (AD) or without and compared with people without Mediterranean diet, we look for differences between two populations. We know AD has an important inflammatory and oxidative stress component and many Scientifics have published reduction of oxidative stress and inflammatory proteins after ingestion of components from Mediterranean diet, such as polyphenols. Here using different polyphenols from red wine, and different plant extracts (phytoestrogen, stevia, curcumine, etc) we determined pro-inflammatory proteins such as IL-1, TNF-α, IL-6 and IL-13 by ELISA, cell death and apoptosis by MTT assays and also we detect oxidative stress proteins such as, COX-2, iNOS, mnSOD, etc. in cells in culture with amyloid beta and in patients with AD. Our results demonstrate a reduction in oxidative stress indicators and pro-inflammatory proteins in Mediterranean people compared with non-Mediterranean people, in the AD group and in non-AD group. We demonstrated here the protective effect in front of apoptosis and cell death of the Mediterranean components In conclusion different components of our Mediterranean diet are good enough to produce anti-inflammatory and anti-oxidants benefits, diminishing apoptosis and cell death recovering or stopping the develop of AD.

Biography

In 1990 she graduated in Biological Science at the University of Valencia and had PhD under supervision of Consuelo Guerri, until 1996. Dissertation was "Changes of astroglia intermediate filaments gene expression during rat brain development: Effect of alcohol exposure". 1997 she won pre-doctoral award, school of medicine, University of Valencia. In 1997 she joined Eva Qwanstrom's group at the Hallamshire Hospital, University of Sheffield, UK in interleukin-1 (IL-1) receptor complex. In 2000 returned to Spain at Department of Physiology, school of medicine, University of Valencia as lecturer, working in Alzheimer's disease with Jose Viña's group. Actually is independent laboratory director, studding Alzheimer's diseases, inflammation and oxidative stress. She has about 25 international papers been referee of many health international journals.

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