Abstract

Olive Biophenols: A promising natural compound against the Alzheimer's disease pathogenesis

Syed Haris Omar

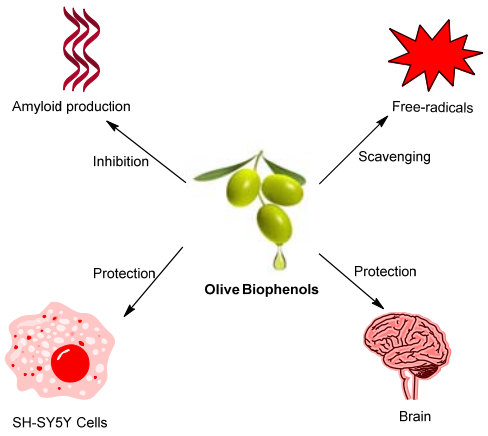
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I. Abstract Body (up to 250 words)

The health beneficial action of olive (*Olea europaea*) phenolic (biophenols) components in the oil, leaves and fruits are well established. A number of studies have elucidated the biological effects of isolated olive biophenols oleuropein, hydroxytyrosol, and verbascoside with particular attention on their antioxidant activity. Mounting evidences indicate that oxidative stress and metals (Cu & Fe) plays a central role in the production and progression of toxic amyloid beta (Aβ) in Alzheimer's disease. I have recently added the neuroprotective action of olive biophenols, caffeic acid, verbascoside and olive extract in the neuroblastoma (SH-SY5Y) cells against the H_2O_2 and Cu-induced toxicities. Furthermore, olive biophenols oleuropein, verbascoside, quercetin and luteolin were significantly inhibited Aβ and protected neuroblastoma (SH-SY5Y) cells from Aβ-induced toxicity. In conclusion, *in vitro*, *in vivo* and epidemiological studies reported the pharmacological effects of olive biophenols effects as an antioxidant and inhibitor of Aβ in aging are growing and suggesting that olive biophenols could be natural medicine as dietary nutriceuticals against the Alzheimer's disease

II. Image:



III. Reference:

1. **Syed Haris Omar**, Philip G. Kerr, Chris J Scott, Adam Hamlin, Hassan K Obied. Olive (*Olea europaea* L.) Biophenols: A Nutriceutical against Oxidative Stress in SH-SY5Y Cells. *Molecules* **2017**, *22*, 1858.
2. **Syed Haris Omar**, Chris J Scott, Adam Hamlin, Hassan K Obied. The protective role of plant biophenols in mechanisms of Alzheimer's disease. *The Journal of Nutritional Biochemistry*. **2017**. 47: 1-20.
3. **Syed Haris Omar**. Biophenols pharmacology against the amyloidogenic activity in Alzheimer's disease. *Biomedicine and Pharmacotherapy*. **2017**; 89: 396-413.

IV. Biography:

Dr. Syed Haris Omar working as a Lecturer in Bioscience at Endeavour College of Natural Health, Melbourne, Australia, and having >8 Years of Lectureship experiences. He received Bachelor and Master of Pharmacy degree and awarded his PhD in Pharmacology from the School of Biomedical Sciences, Charles Sturt University, Australia in 2016. His research work was focused on Alzheimer's disease prevention and treatment by using naturally derived Olive biophenols. Dr. Haris use transgenic mice models of Alzheimer's disease to contribute in the better understanding of the plant Biophenols role as an alternative approach against the amyloid-beta toxicity in Alzheimer's disease. His research interest lies in the area of pharmacology, neuropharmacology, and natural products against the neurodegenerative diseases. He has published several peer-reviewed articles including research, reviews, book chapters and conference papers, and serving as Editorial Board Member and reviewer in Journals of repute. Currently, he is serving as a member in The Australian Society of Clinical and Experimental Pharmacologists and Toxicologist (ASCEPT), Australian Society for Biochemistry and Molecular Biology (ASBMB), American Chemical Society (ACS), American Association for The Advancement of Science (AAAS), and American Oil Chemist Society (AOCS). In addition, he is Vice Chair in the Local Health Advisory Committee, NSW Health, board member in The Australia Day Community Committee, and The Riverina Family Law Pathway Network Steering Committee.

V. Presenting author details



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