

Accepted Manuscript

Imbalanced cholesterol metabolism in Alzheimer's disease

Zhao Xue-shan, Peng Juan, Wu Qi, Ren Zhong, Pan Li-hong, Tang Zhi-han, Jiang Zhi-sheng, Wang Gui-xue, Liu Lu-shan

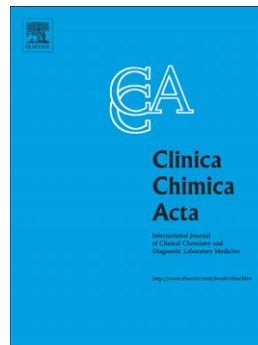
PII: S0009-8981(16)30069-9
DOI: doi: [10.1016/j.cca.2016.02.024](https://doi.org/10.1016/j.cca.2016.02.024)
Reference: CCA 14292

To appear in: *Clinica Chimica Acta*

Received date: 1 November 2015
Revised date: 28 February 2016
Accepted date: 28 February 2016

Please cite this article as: Xue-shan Zhao, Juan Peng, Qi Wu, Zhong Ren, Li-hong Pan, Zhi-han Tang, Zhi-sheng Jiang, Gui-xue Wang, Lu-shan Liu, Imbalanced cholesterol metabolism in Alzheimer's disease, *Clinica Chimica Acta* (2016), doi: [10.1016/j.cca.2016.02.024](https://doi.org/10.1016/j.cca.2016.02.024)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Imbalanced cholesterol metabolism in Alzheimer's disease

Zhao Xue-shan^{1#}, Peng Juan^{1#}, Wu Qi^{1#}, Ren Zhong¹, Pan Li-hong¹, Tang Zhi-han¹, Jiang
Zhi-sheng^{1*}, Wang Gui-xue², Liu Lu-shan^{1, 2*}

*1. Institute of Cardiovascular Disease, Key Lab for Arteriosclerosis of Hunan
Province, University of South China, Hengyang, Hunan 421001, China*

2. College of Bioengineering, Chongqing University, Chongqing 400030, China

Abstract: Alzheimer's disease (AD) is a complex and multifactorial neurodegenerative disease that is mainly caused by β -amyloid accumulation. A large number of studies have shown that elevated cholesterol levels may perform a function in AD pathology, and several cholesterol-related gene polymorphisms are associated with this disease. Although numerous studies have shown the important function of cholesterol in AD pathogenesis and development, the underlying mechanism remains unclear. To further elucidate cholesterol metabolism disorder and AD, we first, review metabolism and regulation of the cholesterol in the brain. Second, we summarize the literature stating that hypercholesterolemia is one of the risk factors of AD. Third, we discuss the main mechanisms of abnormal cholesterol metabolism that increase the risk of AD. Finally, the relationships between AD and apolipoprotein E, PCSK9, and LRP1 are discussed in this article.

Keywords: Alzheimer's disease, A β , cholesterol, apoE, pcsk9, LRP1

#Co-first author

* Co-Corresponding author

Institute of Cardiovascular Disease, Key Lab for Arteriosclerosis of Hunan Province,
University of South China, Hengyang, Hunan 421001, China

Tel: +86-734-8281297(Liu Lu-shan), +86-734-8281836(Jiang Zhi-sheng)

Fax: +86-734-828127(Liu Lu-shan), +86-734-8281836(Jiang Zhi-sheng)

Download English Version:

<https://daneshyari.com/en/article/8310182>

Download Persian Version:

<https://daneshyari.com/article/8310182>

[Daneshyari.com](https://daneshyari.com)