

Alzheimer's disease in men linked to low levels of hormone, IGF-1

October 2 2012

Low serum levels of insulin-like growth factor-1 (IGF-1) and insulin-like growth factor binding protein-3 (IGFBP-3) are associated with Alzheimer's Disease in men, but not women, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism (JCEM)*.

IGF-1 and IGFBP-3 are involved in longevity and could be beneficial to cognition, especially in Alzheimer's disease where experimental studies have shown that IGF-1 opposes the main pathological processes of Alzheimer's disease. The current study investigated the relationship between IGF-1 and IGFBP-3 [serum levels](#) and cognitive impairment, including Alzheimer's disease.

"At this time, no curative treatment is available for Alzheimer's disease so focus on modifiable associated factors is of major importance," said Emmanuelle Duron, MD, PhD, of Broca Hospital in Paris, France and lead author of the study. "Our research shows a possible usefulness of IGF-1 in Alzheimer's disease treatment, especially in early stages."

In this multicentric cross-sectional study, researchers measured IGF-1 and IGFBP-3 serum levels in 694 elderly subjects (218 men and 476 women). Of the study participants, 481 had memory complaints and were diagnosed with Alzheimer's disease or mild cognitive impairment. Duron and her colleagues found that IGF-1 and IGFBP-3 serum levels were significantly associated with cognitive status in [men](#), but not in women.

"Our cross-sectional association does not mean a causal relationship," notes Duron. "Our results justify a longitudinal study to evaluate whether circulating IGF-1/IGFBP-3 are predictive of cognitive decline according to gender."

More information: The article, "Insulin-like Growth Factor-I and Insulin-like Growth Factor Binding Protein-3 in Alzheimer's Disease," appears in the December 2012 issue of *JCEM*.

Provided by The Endocrine Society

Citation: Alzheimer's disease in men linked to low levels of hormone, IGF-1 (2012, October 2) retrieved 9 July 2023 from <https://medicalxpress.com/news/2012-10-alzheimer-disease-men-linked-hormone.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.