# 一般的な感染症により記憶力低下リスクが上昇する可能性がある(Abstract: 107)

一般的な感染症への曝露は記憶や認知能力と関連する

Exposure to common infections is linked to problems with memory and cognitive skill

一般的な感染症への曝露は、たとえその感染症が発病しなくとも記憶や脳機能に関連するとの研究結果が2014年American Stroke Association's International Stroke Conference で発表された。先行研究から、一部の感染症が脳卒中やアルツハイマー病のリスクを上昇させることが既に示されている。研究者らは、これらの感染症に過去に曝露したとのエビデンスが記憶力、思考速度および他の脳機能に影響しているかどうかを調査した。彼等は、Northern Manhattan Studyに参加した588人に脳機能検査を施行し血液検体を採取した。参加者の半分が5年後に再度認知機能検査を受けた。その結果、クラジア肺炎、ヘリコバクターピロリ、サイトメガロウイルス、および単純ヘルペスウイルス1および2型への曝露により引き起こされる抗体価と記憶、精神的処理速度、抽象的思考、計画および推論能力などの認知機能検査の成績が悪いことと関連があった。これらの感染症への曝露は動脈硬化や炎症を引き起こすだけでなく脳卒中リスクを上昇させることと関連しているのであろうと筆者らは考えている。今回のスタディは、感染症が認知機能低下と関連する理由を説明するものではないが、感染症への免疫反応により引き起こされる可能性があることを示唆している。

# **Full Text**

Exposure to common infections is linked to memory and brain function, even if the infections never made you ill, according to research presented at the American Stroke Association's International Stroke Conference 2014.

Researchers found an index of antibody levels caused by exposure to Chlamydia pneumoniae, Helicobacter pylori, cytomegalovirus, and herpes simplex viruses 1 and 2 was associated with worse cognitive performance, including memory, speed of mental processing, abstract thinking, planning and reasoning ability.

"We were very interested in what were the risk factors for cognitive performance and decline," said Clinton Wright, M.D., M.S., the study's lead researcher and scientific director of the Evelyn F. McKnight Brain Institute at the University of Miami.

Earlier studies have already linked certain infections to an increased risk of stroke and Alzheimer's disease. Researchers investigated if evidence of past exposure to these infections contributed to performance on tests of memory, thinking speed and other brain functions.

The study conducted brain function tests and took blood samples from 588 people who participated in the Northern Manhattan Study. Half of the participants then took cognitive tests again in five years.

Researchers believe exposure to these infections may be associated with an increase in stroke risk, as well as an increase in atherosclerosis and inflammation, said Dr. Wright, who is also chief of the division of cognitive disorders and associate professor of neurology, neuroscience, and epidemiology and public health at the Leonard M. Miller School of Medicine at the University of Miami.

The study doesn't explain why the infections are related to worsening cognitive function. "It could be caused by an immune system response to the infections or the infection itself could result in clinical damage that we're not aware of," Wright said.

Wright, who conducted the study in collaboration with researchers at Columbia University, isn't suggesting that people take any action to combat these infections. "There is no evidence yet that treating these infections is beneficial," he said, because the initial exposure to the viruses may have happened decades earlier and the damage may be the result of a gradual process. "It would be great if treatment prevented these bad outcomes, but we're very far away from having that type of evidence." Further studies will need to be conducted to see if the findings are duplicated in other populations, he said, since most of the participants in the study — 70 percent — were Hispanic.

Co-authors are Hannah Gardener, Sc.D.; Chaunhui Dong, Ph.D.; Chensy Marquez, M.D.; Janet T. DeRosa, M.P.H.; K. Cheung, Ph.D.; Ralph L. Sacco, M.D., M.S.; Yaakov Stern, Ph.D.; and Mitchell S. Elkind, M.D., M.S.

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