

Is Alzheimer's 'Heart Disease' of the Brain?

Alzheimer's disease might be caused by a buildup of fatty deposits in the brain that occurs in a similar way to what happens to cause coronary heart disease, a new preliminary study suggests.

In atherosclerosis, plaque builds up on the inner walls of arteries that deliver blood to the body. Studying mice and tissue samples from the arteries of patients, researchers of Washington School of Medicine in St. Louis suggest this accumulation is driven, at least in part, by processes similar to the plaque formation implicated in brain diseases such as Alzheimer's and Parkinson's.

Protein buildup is widely studied in the brain—accumulation of proteins such as amyloid beta and tau are hallmarks of Alzheimer's, Parkinson's and other degenerative neurological disorders. But until now, the process that causes atherosclerosis had not been implicated, the researchers said.

The researchers used mice, as well as tissue samples from patients, and exposed them to cells to types of fats known to lead to atherosclerosis. They found that in the absence of a certain type of cell's ability to clear waste because dysfunctional and that this protein builds up in the brain.

They hope this finding could lead to new ways to clear this protein from the brain and lead to a new way to treat Alzheimer's disease, they said of their study, which appears in *Science Signaling*.

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