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Project Title

The Mediation of the Relationship between Fat Distribution Patterns with Cognitive Changes and Frailty by Inflammation and Vascular Changes in the Canadian Longitudinal Study on Aging

Project Summary

How fat is distributed in the body may be more relevant to health compared to the total amount of fat. Central obesity, identified by a large waist circumference, is indicative of large amounts of visceral adipose tissue (VAT) which has been found to be associated with poor health. High volumes of VAT are associated with whole body inflammation, and both how fat is distributed and its association with inflammation may play a role in how vascular system ages (e.g., carotid thickness or atherosclerosis). Decreased blood flow related to narrowing of the arteries due to atherosclerosis may reduce the blood available for the brain and other organs, leading to declines in cognitive performance and physiological frailty. Using baseline and data from follow up one from the Canadian Longitudinal Study on Aging (CLSA), we will assess if inflammation and narrowing of the arteries explains the relationship between VAT with frailty and cognition.

Keywords

Visceral fat, Inflammation, Aging, Frailty, Obesity