

Clinical Coordinating Center
Massachusetts General Hospital
55 Fruit Street, 5LON207
Boston, MA 02114

Data Coordinating Center
Massachusetts General Hospital
165 Cambridge Street Suite 400
Boston, MA 02114

Cytomegalovirus IgG Titer and Coronary Artery Disease in People with HIV

Samuel Schnittman, Kristine Erlandson, Steven Grinspoon, and colleagues

Link to full article: <https://academic.oup.com/cid/advance-article-abstract/doi/10.1093/cid/ciac662/6668874?redirectedFrom=fulltext&login=true>

Cytomegalovirus (CMV) is a common viral infection among people all over the world, especially those with HIV. It is thought that among people living with HIV (PWH), prior CMV infection may lead to increased inflammation (a reaction of the body to injury or infection). Additionally, prior CMV infection has been linked to an increased risk of heart disease among PWH. In this analysis, we looked for associations between prior CMV infection and heart disease using CMV IgG titer (antibody response to CMV) and coronary computed tomography angiography (CTA) among PWH enrolled in the REPRIEVE trial. CTA is an imaging method to see how much plaque (fatty build-up) is in the coronary arteries (vessels that supply blood to the heart). REPRIEVE recruited participants without known heart disease or symptoms to see if statins work to prevent heart disease in this important group.

- The participants:
 - 672 participants
 - Average age: 51 years
 - 83% male
 - Average BMI: 27.4 kg/m²
- The findings:
 - Higher CMV IgG titer was associated with older age, current CD4, and nadir CD4
 - CMV IgG titer was associated with markers of inflammation
 - However, when considering other variables that may impact these inflammatory markers, the association between CMV IgG titer and markers of inflammation was reduced
 - CMV IgG titer was not associated with the presence of plaque

In Summary: CMV IgG titer, as a surrogate for prior CMV infection, was not associated with coronary artery disease (a type of heart disease often caused by plaque build-up) among a large population of PWH on antiretroviral therapy enrolled in REPRIEVE. Additionally, pathways linking markers of inflammation to heart disease among PWH may not be influenced by prior CMV infection in this setting.

REPRIEVE Trial Website: reprivetrial.org

The findings shared in this summary are from the REPRIEVE population at a specific point in time. These findings are descriptive and not intended to change clinical care. If you have questions about what you've read, please talk to members of the REPRIEVE study team at your local site or a health care provider