Why Does HIV Raise Women's Risk of Heart Attack More Than Men's?

A recent study found that factors other than coronary plaque likely drive this sex-based difference.

May 9, 2018 By Benjamin Ryan

Differences in the presence of coronary plaque do not likely explain why HIV raises women's risk of heart attack more than men's.

Among men, HIV is associated with about a 1.5-fold increased risk of heart attack, while for women the virus is linked with about a 3-fold increased risk.

Publishing their findings in the Journal of Acquired Immune Deficiency Syndromes, researchers used an imaging technique called a coronary computed tomography angiography to study the extent and nature of plaque in the arteries of 48 HIV-positive women and 97 HIV-positive men. The participants were receiving stable antiretroviral (ARV) treatment and did not have cardiovascular disease (CVD). Both the women and men had a median age of 48 years.

Thirty-five percent of the women and 62 percent of the men had any subclinical coronary atherosclerotic plaque, known simply as coronary plaque. Twenty-five percent of the women and 51 percent of the men had a high-risk form of plaque known as positively remodeled plaque.

After adjusting the data to account for differences in CVD risk factors, the study authors found that compared with being female, being male was associated with a 3.8-fold increased likelihood of having any coronary plaque and a 3.7-fold greater chance of having high-risk positively remodeled plaque.

These disparities suggested that other mechanisms drive HIV's greater effect on heart attack risk among women compared with men. It is possible that plaque hidden in smaller blood vessels that feed the heart is one such mechanism. Further research is needed.

To read a press release about the study, click here.

To read the study abstract, click here.

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http://beta.docker.poz.com/article/hiv-raise-womens-risk-heart-attack-mens