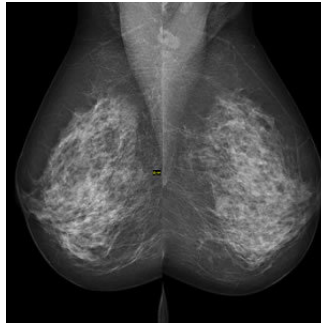## Digital Mammography Helps Predict Heart Disease

According to findings that will be published in *JACC Cardiovascular Imaging*, mammography could help predict heart disease in women by detecting signs of calcium in the arteries of the breast. This could help ensure early treatment and provide benefits to younger women.

Heart Disease is the cause of 22.4 percent of deaths among women in the US and breast cancer accounts for 21.5 percent of fatalities, making these the two leading causes of death among women in the U.S.

Digital mammography which is used in 96 percent of mammography units can detect calcification and can help indicate how much calcium is building up in the coronary arteries.

Coronary arterial calcification (CAC) is an early sign of cardiovascular disease and has been found to be associated with breast arterial calcification and atherosclerotic disease, heart attack, stroke and other cardiovascular conditions. Findings show that breast arterial calcification could be an equal or strong indicator of future heart disease as compared to high cholesterol, high blood pressure and diabetes.

A study conducted by Dr. Harvey Hecht, professor at the Icahn School of Medicine at Mount Sinai in New York City, NY, and director of cardiovascular imaging at Mount Sinai St. Luke's Hospital, and colleagues compared data for 292 women who underwent mammography and non-contrast computed tomography (CT) scan of the chest. Both breast arterial calcification and CAC were evaluated in the participants on scales from 0-12.

Results of the study showed that 42.5 percent of the women showed signs of breast arterial calcification. 70 percent had CAC and 63 percent of those whose CT scan showed CAC also had breast arterial calcification.

Among the participants, half of the women under the age of 60 had both CAC and breast arterial calcification. Among younger women with breast arterial calcification, 83 percent had CAC. Results indicate that CAC is three times more likely to be present in women with breast arterial calcification.

These findings thus suggest that subclinical atherosclerotic may predict the risk of heart disease more effectively than other risk factors.

Dr. Hecht says, "Many women, especially young women, don't know the health of their coronary arteries. Based on our data, if a mammogram shows breast arterial calcifications, it can be a red flag, an 'aha' moment, that there is a strong possibility she also has plaque in her coronary arteries."

Source: JACC Cardiovascular Imaging
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