

Patients With Heart Disease at Increased Risk for Advanced Breast Cancer



Cardiovascular disease (CVD) and cancer remain leading causes of death. New research from The University of Texas MD Anderson Cancer Center reveals that patients with late-stage or metastatic breast cancer are significantly more likely to have had pre-existing CVD compared to those diagnosed with early-stage breast cancer.

Published in *JAMA Network Open*, the study found that individuals diagnosed with advanced breast cancer were 10% more likely to have pre-diagnosis CVD. Among breast cancer subtypes, hormone receptor-positive (HR+) and HER2-negative (HER2-) cases showed the highest association, with 11% of patients having pre-existing CVD.

Cardiovascular disease can create an immunosuppressive environment that may promote the growth and spread of breast tumour cells. These findings suggest a potential link between cardiovascular health and the likelihood of being diagnosed with advanced breast cancer.

The case-control study analysed data from over 19,000 individuals, with a median age of 73, using the Surveillance, Epidemiology, and End Results (SEER)-Medicare linked databases from 2009 to 2020. Researchers compared CVD prevalence between patients with early-stage (stage I-II) and advanced-stage (stage III-IV) breast cancer.

Study findings show that nearly half (49%) of all study participants had pre-existing CVD. Patients with locally advanced or metastatic breast cancer were significantly more likely to have pre-diagnosis CVD. HR+/HER2- breast cancer, which accounts for nearly 70% of all breast cancer cases, showed the strongest correlation with pre-existing CVD.

HR+/HER2- breast cancer is often treatable when detected early, before it metastasises. However, the five-year relative survival rate drops to 34% for metastatic cases, highlighting the critical importance of early detection and prevention.

CVD includes conditions such as coronary heart disease, stroke, high blood pressure, heart failure, and arterial disease. These conditions may contribute to immunosuppressive states that exacerbate cancer progression.

The study's findings suggest that individuals with CVD may benefit from enhanced breast cancer screening protocols. Personalised screening strategies could help catch breast cancer at earlier, more treatable stages for those with pre-existing cardiovascular disease.

The analysis underscores the need for integrated approaches to managing cardiovascular and oncological health. Early detection and targeted interventions could improve outcomes for individuals at the intersection of these two leading health challenges.

Source: [University of Texas M. D. Anderson Cancer Center](#)

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