Targeting breast cancer through the genes of Sub-Saharan African women

For the first time, DNA contributed by Sub-Saharan African women has been thoroughly evaluated with innovative genomics technology in an effort to understand the genetic bases for breast cancer in African populations.

African and African American women are more likely than women of other ancestries to develop and to die from triple-negative breast cancer. In the August 21, 2018 issue of the Journal of Clinical Oncology, a multinational research team identifies the genes responsible for inherited breast cancer in Nigerian women.

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For their study of "Inherited Breast Cancer in Nigerian Women," the authors sequenced 25 genes associated with increased risk of breast cancer and identified all damaging mutations in each of those genes.

They found that one out of eight breast cancers in the study was caused by an inherited mutation in one of four of these genes. Mutations in BRCA1 (7 percent of patients) and BRCA2 (4 percent) were the most common, followed by PALB2 (1 percent) and TP53 (0.4 percent).

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"Genomic sequencing to identify women at extremely high risk of breast cancer could be a highly innovative approach to tailored risk management and life-saving interventions," the authors wrote. Given the limited treatment resources available in this setting, "prevention and early detection services should target these highest-risk women."

Read full, original post: Sequencing genomes of Nigerian women could help prevent many lethal breast cancers