

An Equalizer for One Racial Disparity in Breast Cancer

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October 3, 2012 — Regular screening mammography can eliminate the well-documented disparity between black and white women in breast cancer stage at diagnosis, according to a [study published](#) in the September issue of *Breast Cancer Research and Treatment*.

When women of both races received regular screening mammography from 2001 to 2006 at 2 medical centers in Chicago, Illinois, there was no difference in terms of how many of them presented with advanced-stage disease, the study authors found.

"For all the talk of biological differences between the breast cancers in black and white women, the best way to modify the effects of adverse tumor characteristics seems to be early detection with regular screening mammograms," senior author David Ansell, MD, chief medical officer at Rush University Medical Center in Chicago, told *Medscape Medical News*.

The finding is groundbreaking. The study is "the first to suggest that in black women [older] than 40 years of age, regular mammographic screening can modify these negative biological risk factors," the authors note.

Whether this translates into improved disease outcomes for black women is the big question not formally addressed in the study. Dr. Ansell thinks it can.

"In addition to there being no difference in stage of disease (actually, black women had more in situ or very early and small cancers), there were no black/white survival differences, although we did not do detailed a survival analysis," he said.

Lovell Jones, PhD, who was not involved in the study, said it provides "confirmatory" evidence that black/white disparities in breast cancer can be overcome.

He agrees with Dr. Ansell: "Regular mammograms will improve disease outcome among African American women," Dr. Jones told *Medscape Medical News*. Dr. Jones is director of the Center for Research on Minority Health at the University of Texas M.D. Anderson Cancer Center in Houston.

As [reported previously](#) by *Medscape Medical News*, a 2009 study found that equal outcomes in black and white women are possible with equal care and equal access to treatment.

However, it is well known that black women present with later-stage breast cancers than white women, and that their cancers are more likely to be larger, receptor negative, and undifferentiated.

Dr. Ansell and colleagues evaluated black/white differences in stage and biology of breast cancer in 2 groups: 980 women (726 white, 254 black) who had received regular mammograms in the 2 years before being diagnosed with breast cancer; and 662 (492 white, 170 black) women who did not receive regular screening mammography.

There were no significant black/white differences in the proportion of early-stage breast cancers (74% vs 69%; $P = \text{NS}$) in the regularly screened population or in the irregularly screened population (60% vs 68%; $P = \text{NS}$). Thus, the percentage of advanced-stage breast cancers were roughly the same for black and white women in the 2 screening populations.

As expected, the regularly screened population got more mammograms (58% had 4 or more) than the irregularly screened population (41% had 4 or more).

"Unique Finding"

In the study, regularly screened black women were less likely than irregularly screened black women to have estrogen-negative breast cancers (26% vs 36%; $P < .05$), progesterone-negative breast cancers (35% vs 46%; $P < .05$), and poorly differentiated breast cancers (39% vs 53%; $P < .05$).

Similarly, regularly screened white women had better prognostic factors than irregularly screened white women, although these did not reach statistical significance.

"This suggests that poor prognostic biological factors such as receptor status and tumor grade, once thought to be innate and immutable, may be significantly ameliorated by regular mammography screening, especially in black women," Dr. Ansell said in a statement.

"This is a unique finding that will require further exploration," he added.

Lead author Paula Grabler, MD, a radiologist at Northwestern Memorial Hospital in Chicago, said that this study "reinforces the fact that racial gaps in breast cancer outcomes can be improved. One solution within reach is simple access to routine and regular mammography screening."

The authors say limitations of the study include its retrospective nature and its limited sample size from only 2 centers, which might limit generalizability. Also, they are unable to comment on survival.

The authors and Dr. Jones have disclosed no relevant financial relationships.