

A black and white look at breast cancer mortality

February 21 2007

African and African American women are more likely to die of breast cancer than their white counterparts because they tend to get the disease before the menopause, suggests new research from the University of East Anglia and the Children's Hospital Boston in collaboration with researchers in the US and Italy.

A racial disparity in mortality rates from breast cancer in the US first appeared in the 1970s coinciding with the introduction of mammography. The new research, published in *The International Journal of Surgery*, posits that the reason for this is not reduced access to medical care, but because surgery in pre-menopausal women could encourage growth of the cancer.

The average age of breast cancer diagnosis in African American women is 46, compared with 57 for European Americans.

A previous study by one of the article's authors, Dr Isaac Gukas, of the University of East Anglia's School of Medicine, Health Policy and Practice, identified a mean age of 43 for diagnosis of breast cancer in Nigerian women compared with a mean age of 64 in the United Kingdom. Over 70% of the Nigerian cases were aged below 50, compared to less than 20% of cases in the UK.

Further research published in 2005 suggested that those who underwent surgery for the disease before the menopause were more likely to relapse.

"Surgery to remove a primary tumour induces the formation of new blood vessels –known as angiogenesis. In pre-menopausal women who have high levels of oestrogen and other hormones, this may encourage the growth of the tumour," said Dr Gukas.

"Early detection, through mammography, is more effective in post-menopausal women, and more white women are diagnosed after the menopause. This could explain the disparity in mortality."

Dr Gukas's experience as a clinician treating breast cancer in Africa led him to form the hypothesis that surgery-induced angiogenesis might explain the very high early mortality and generally poor outcome of patients in that part of the world.

He also noted that African patients presented with the disease in their early 40s, although no one has yet identified why black women get the disease earlier.

"We do not intend to oversimplify this subject, but it seems clear that at least part of the phenomenon of widening mortality along racial lines could be attributed to surgery leading to accelerated tumour growth in pre-menopausal women," said Dr Gukas.

"We have the data from epidemiology. Now we need further research to confirm these observations before we explore any necessary changes in practice."

The hypothesis, if proven, has implications for all women with breast cancer, especially pre-menopausal women – including the 20% of women in the UK who get breast cancer before the age of 50.

"We do not have enough evidence to alter treatment at present and younger women should not be deterred from having surgery. But, if

further studies confirm our hypothesis, we may need to give them appropriate chemotherapy, including angiogenesis inhibitors, beforehand to ensure the best outcome," added Dr Gukas.

Source: University of East Anglia

Citation: A black and white look at breast cancer mortality (2007, February 21) retrieved 25 April 2024 from <https://medicalxpress.com/news/2007-02-black-white-breast-cancer-mortality.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.