

Early MRI screening reduces risk of breast cancer death for survivors of childhood HL

1 March 2016

Researchers at Princess Margaret Cancer Centre have confirmed in a screening effectiveness study that early screening with MRIs can reduce breast cancer mortality for female survivors of childhood Hodgkin's lymphoma (HL) who received chest radiation.

The findings published today in the *Journal of the National Cancer Institute* ([DOI: 10.1093/jnci/djw010](https://doi.org/10.1093/jnci/djw010)), build on previous clinical work that demonstrated MRI detects [breast cancer](#) at early stages in young survivors who are not old enough to start standard [breast cancer screening](#), says principal investigator Dr. David Hodgson, a radiation oncologist at the Princess Margaret Cancer Centre, University Health Network. Dr. Hodgson is also a Professor in the Department of Radiation Oncology, Faculty of Medicine at the University of Toronto.

"If you are a young woman who was treated with [radiation therapy](#) to your chest as a teenager or child for HL, or for that matter chest radiation therapy for any reason, you should be having a conversation with your family doctor or your oncologist about whether to start breast cancer screening earlier than most women would," says Dr. Hodgson.

Dr. Hodgson estimates that there are thousands of HL survivors in North America treated throughout the 1990's and later who received chest radiation therapy and are unaware they are at risk and eligible for early screening. "Many of these are women who received radiotherapy to more normal tissue or at higher doses than are used currently, but even for more recently treated patients, screening should reduce the risk of breast cancer death."

For the study, Dr. Hodgson's research team gathered published information from dozens of studies about the risk of developing breast cancer in childhood lymphoma survivors, the accuracy of

different forms of breast cancer screening, and the rates at which women agree to be screened when asked.

Using mathematical models, the researchers used these data to quantify the effectiveness of starting screening early - at age 25 - for women who received chest radiation as a teenager. They found that using mammography about 260 survivors of childhood lymphoma would need to be invited to have early breast cancer screening to prevent one breast cancer death, which compares favorably to widely endorsed screening programs for average risk women aged 50 or older, which generally require 300-1,300 women to be invited to prevent one breast cancer death. Notably, the use of MRI for screening improved the effectiveness considerably compared to mammography, reducing the number of women needing screening to prevent one breast cancer death to less than 80.

Dr. Hodgson cautions that "false positives" from MRI screening are common given that this scanning method is so sensitive it detects many changes in breast tissue, most of which are not cancer. The results indicate that from the age of 25 to 39 about a third of patients will have a false positive, and as screening extends to age 75, almost 80 per cent of [women](#) screened with MRI will have at least one false positive. "So this is important for patients to know and for physicians to counsel patients about because it's stressful for a patient to be called back about suspicious findings."

More information: In Ontario, survivors of childhood cancer can contact the Pediatric Oncology Group of Ontario (POGO) for information about attending follow-up clinics (<http://www.pogo.ca/>).

Provided by University Health Network

APA citation: Early MRI screening reduces risk of breast cancer death for survivors of childhood HL (2016, March 1) retrieved 9 September 2022 from <https://medicalxpress.com/news/2016-03-early-mri-screening-breast-cancer.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.