

Survey of U.S. Media Coverage of the Review of Mammography Trials: An Opportunity to Educate Consumers About the Risks of Detecting *Ductal Carcinoma in Situ* ?

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IMPORTANT ETHICAL PRINCIPLE OF SCREENING

We believe there is an ethical difference between everyday clinical practice and screening. If a patient asks a medical practitioner for help, the doctor does the best possible. The doctor is not responsible for defects in medical knowledge. If, however, the practitioner initiates screening procedures the doctor is in a very different situation. The doctor should, in our view, have conclusive evidence that screening can alter the natural history of disease in a significant proportion of those screened.

Cochrane AL, Holland WW.
Validation of screening procedures.
Br Med Bull 1971; 27:3-8



Background:

The promotion of mammography screening began in the U.S., in 1972, with the Breast Cancer Detection and Demonstration Project, sponsored by the American Cancer Society (ACS) and the National Cancer Institute. This nationwide Project encouraged all women over the age of 35 to accept mammography in much the same way they had accepted the Pap test. The ACS, the most influential source of cancer screening information for consumers and physicians, has continued to promote mammography screening with the message: Find a breast cancer early—the smaller, the better—and your life will be saved. 67% of American women over the age of 40 report having had a mammogram in the last two years. A survey of U.S. women in 2000 showed that they considered the high rate of false-positives to be “an acceptable consequence of screening”. However, the survey also found, “Most women are unaware that screening can detect cancers that may never progress”.¹ This year an estimated 49,000 American women will be diagnosed with ductal carcinoma in situ (DCIS), largely as a result of mammography screening. Most will be treated with lumpectomy plus six weeks of radiation therapy, and some will lose a breast.

Objective:

A rare opportunity to educate consumers about DCIS presented itself with the extensive media coverage given mammography as a result of the work of the Nordic Cochrane Centre. A re-analysis of the 2000 review of all randomized controlled trials (RCTs) by Ole Olsen and Peter Gøtzsche was published as a research letter in *The Lancet* (October 20, 2001). The review raised questions about mammography’s mortality-reduction benefit and contradicted the prevailing belief that screening leads to less-drastic treatment. Overtreatment of DCIS was identified as a considerable risk of mammography screening because most cases do not become invasive. We conducted a survey of the media coverage given this review to determine how well DCIS-associated risks were conveyed to the public.

Methods:

Starting October 20, 2001, the largest circulation news sources, including four major TV networks and National Public Radio, were monitored by typing “mammography” periodically into the search engines of their Web sites. Each news item was assessed for the mammography-associated risk information imparted, both by the article/newscast itself and by the policy-makers quoted within.

Results:

Policy makers were prominent in the media coverage, as many wanted to stifle the debate over mammography’s life-saving benefit because women might be “dissuaded from getting regular mammograms” and “lives will be lost”. These concerns were expressed in an open letter/full-page ad in *The New York Times* from the ACS and nine other organizations that recommend mammography screening. The media interest continued through May 5, 2002. The story was kept alive as several policy-setting organizations announced their own reviews of all mammography trials.

We collected 96 relevant news stories, 8 editorials, 34 letters to the editor, and 14 Op-Ed page/commentaries. The most common theme was the question of whether mammography saves lives. Of the 85 that mentioned any mammography-associated risk, most left the impression that false-positive results and unnecessary biopsies are the most serious. Of the 41 news items that mentioned DCIS or the concept of a cancer that does not progress, most gave the subject about two sentences. Only three articles and two TV shows provided in-depth discussions of DCIS and explained the resulting overtreatment. Quotes from policy-makers were overwhelmingly in favor of mammography; and their illusions to DCIS were rare and brief.

Conclusions:

To most consumers, the idea of a cancer that does not progress if left untreated is counterintuitive. Good explanations of DCIS and its treatments were rare in the media coverage of the review by Ole Olsen and Peter Gøtzsche. Policy makers are not giving consumers the risk information they need to make an informed decision whether to continue mammography screening.

Discussion:

Initially only two news sources reported Olsen and Gøtzsche research letter. The media attention might have ended in October, had it not been for *The New York Times* (NYT). Deeply immersed in anthrax-related news when the research letter was published, the NYT’s premier medical reporter, Gina Kolata, did not get to the mammography review until December. Her extensive article was given front-page status, which triggered the usual flood of attention from other media. Kolata’s article contained the three major elements of the review: 1) uncertainties about whether mammography saves lives; 2) more mastectomies in the mammography-screened women; 3) and the increased detection of cancers that do not progress. The last point, however, was given only one sentence.

As other media took up the story, the mammography-related harms receded into the background of the reporting. The central theme became the uncertainties about whether mammography saves lives. Kolata continued to drive the story into 2002 by reporting such “events” as the review of all mammography RCTs by the editorial board of the National Cancer Institute’s database. She also wrote several articles about cancer screening tests, in general, and the science and politics of mammography, in particular. Media interest revived each time a group announced its own review of the RCTs.

The media began to address DCIS more extensively as the coverage continued into February. Time magazine gave the topic 36 sentences. And the popular TV show *60 Minutes*, which ended our survey on May 5, devoted an entire segment to DCIS. In the last few weeks of our survey, several news sources began to acknowledge that only a minority of DCIS (about 30%) would progress to invasive breast cancer. The fact that no test can accurately identify the DCIS that can be left untreated was presented as a dilemma for women and doctors. The reader/viewer was left with the impression that the overtreatment of the majority was the price to be paid for saving the lives of the minority. No media reported what is to us the most crucial point: *Early detection of DCIS confers no lifesaving benefit to anyone.*² This was shown in the 13-year results for the Canadian National Breast Screening Study.³ Many more cases of DCIS were detected in the mammography-screened women; yet their breast cancer death rate at 13 years was the same as that of the women not given mammograms.

The greatest risk of screening—overtreatment—was largely absent from the media coverage which ended with the resounding reaffirmation of mammography’s value by several policy-setting organizations. Still, the coverage provided consumers with some understanding of the uncertainties about the supporting evidence for mammography screening. Ultimately, however, the burden of conveying information about the risks of screening falls, not upon the media, but upon organizations that promulgate screening guidelines and the physicians who convey them to consumers. It is unethical to recommend tests to healthy, symptomless people without fully informing them of all the risks involved.

¹ Schwartz LM, Woloshin S, Sox C, Fischhoff B, Welch HG. US women’s attitudes to false positive mammography results and detection of ductal carcinoma in situ: cross sectional survey. *BMJ* 2000; 320: 1635-1640.
² Mitra I, Baum M, Thornton H, Houghton J. Is clinical breast examination an acceptable alternative to mammographic screening? *BMJ* 2000; 321:1071-3.
³ Miller AB, et al. Canadian National Breast Screening Study-2: 13-year results of a randomized trial in women aged 50-59 years. *J Natl Cancer Inst* 2000 Sep 20; 92 (18) 1490-0.

OUTTAKES

# of times women were described as confused	38
# of times doctors were described as confused	0
# of media opportunities taken to show half-naked young women	57
# of media opportunities taken to show age-appropriate half-naked women	4
# of letters to the editor written by women who said their lives were saved because of mammography	10
# of letters to the editor written by women whose tumors were found early on a mammogram but died of breast cancer anyway	0

