Seeking Calmer Waters in a Sea of Controversy
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When the distinguished medical journal *The Lancet* published a report (Oct. 20, 2001) by Sir Peter Götzsche and Ole Olsen concluding that “screening for breast cancer is unjustified,” an essential weapon in cancer treatment, early detection, was immediately placed in a sea of controversy and confusion [1, 2]. Their report called into question the scientific validity of six previous mammography screening trials and the recommendations of numerous expert committees. These committees had recommended practice guidelines for breast cancer screening based on an extensive study of the same data-set reviewed by Götzsche and Olsen. The publicity associated with this unexpected negative conclusion placed in question these long-standing recommendations and created great confusion and uncertainty among women and the physicians caring for them.

Professor Colin Begg, in the accompanying commentary, “The Mammography Controversy” [3] has carefully reviewed this important issue and has helped us to better understand the science of large screening trials and, specifically, the two issues raised by Götzsche and Olsen that seem to be the most significant to their argument. They argue that A) women were more likely to have been excluded from the screened group than the control group as a result of a prior diagnosis of breast cancer, and B) that women who die subsequent to a screen-detected cancer are more likely to have their cause of death misclassified as being due to a cause other than breast cancer.

To Begg these issues appear to lack “substance” and must be viewed as “speculative.” They hardly seem to justify a change in current guidelines.

As a breast cancer surgeon, I have followed this controversy with great interest and have been troubled by my understanding of the arguments put forth by Götzsche and Olsen, which appear to rest heavily on their position that “breast cancer mortality is a misleading outcome measure.” This is contrary to everything I have held sacred regarding screening and early detection.

Anyone who treats cancer knows firsthand that the chance of survival for most of its victims is heavily dependent upon the extent of disease at diagnosis and initial therapy. Screening has the goal of achieving the earliest possible diagnosis, with the assumption that treatment would be curative in a higher percentage of cases if instituted earlier. In a recent research letter to *The Lancet*, it was pointed out that analysis of screening mammography must focus on deaths in the appropriate time interval after screening—not too early and while patients are still being screened [4]. The correct determination, therefore, is the number of deaths due to breast cancer divided by the population screened within this more scientifically valid period of observation. They point out the failure of Götzsche and Olsen to address the case-fatality benefit and using this approach, show a very different result, a strongly positive benefit for the Malmo and Canadian trials cited by Götzsche and Olsen.

In support of early detection and treatment of breast cancer is the observation in the U.S. that shows breast cancer mortality declining for the first time beginning in 1989 [5-8]. Between 1989 and 1995, the U.S. mortality rate for breast cancer began to decrease by 1.6% each year and between 1995 and 1998 the decline accelerated to 3.4% annually [6]. This annual decrease in mortality has occurred while the incidence of breast cancer continued to increase by 0.5% per year between 1987 and 1998 [6]. Two facts stand out. During this same period the percentage of women age 40 years and older who report having had a mammogram within the past 2 years increased dramatically from 29.0% in 1987 to 67.0% in 1998 and the incidence of smaller tumors (<2.0 cm) more than doubled while tumors >3.0 cm decreased by 27% [5, 9].

If the argument against screening is based on the frequently raised issue that we do not know whether early lesions such as limited ductal carcinoma in situ have clinical relevance, we can only say that we have no way of testing this hypothesis. Lacking the long-term follow-up data today to determine which of the early lesions may be a threat, I easily come to the conclusion that the earlier I can find my cancer and get rid of it, the greater will be my peace of mind. An oversimplification—I am sure. An inadequate argument...
when discussing health policy and health economics—undoubtedly. But the best I can do when I am the patient.

REFERENCES


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