

# THE CONTROVERSY IN STARTING AGE FOR MAMMOGRAPHY

by Gil Lederman M.D.

The time at which mammography should first be performed has been the subject of much controversy.

Women are being given conflicting advice about mammogram effectiveness when performed prior to the age of 50. All suggest that the earlier the breast cancer the more likely a cure will be obtained. Others, however, doubt the effectiveness of early screening tests like mammography in women less than 50 years of age.

A multi-part symposium was recently published in *Cancer*, a journal for the American Cancer Society. Groups of researchers from several hospitals evaluated data and came to interesting but divergent conclusions.

It is clear from a variety of studies that women 50 years and older do benefit from routine mammographies. The major issue is for women in the decade of life prior to 50.

Because of the controversy of the much publicized Canadian National Breast Screening Study of women in their forties, The National Cancer Institute stopped their support of breast mammographic screening of these women.

A research group led by Daniel Kopans, M.D. et al from The Department of Radiology at Massachusetts General Hospital noted that the present data was insufficient for purposes of analyses. They wrote, "It is deceptive to suggest that scientific study has failed to show a benefit for the mammographic screening aged 40 to 49 years when the question has never been studied scientifically. The fact that there is a mortality reduction that has appeared for women aged 40 to 49 in five out of eight randomized controlled studies which ranged from 22% in Edinburgh to 49% in Malmo trial, despite the fact that the trials are too small and were optimized for women ages 40 to 49, suggest that there is a likely benefit from screening. A benefit can also be inferred from other data that suggests that there should be a benefit if mammography is performed properly and that the appropriate interval between screenings." This was the opening salvo against the Canadian study that curtailed support for early mammograms.

A Ph.D. from Vanderbilt University School of Medicine, William D. Dupont, responded to those arguments. He noted the adverse effect of biopsies including the fact that many biopsies are benign, that there are negative cosmetic effects of multiple biopsies on women and that there can be a loss of time and cost as well as possible discomfort involved with these procedures. Dupont however notes, "These risks may well be worthwhile if the expected number of women years of life saved by screening is sufficiently high. However, we should not advocate that all women in their forties endure these risks unless we are convinced that they are justified by the magnitude of this reduction in breast cancer mortality."

A physician from Canada commented on the Canadian National Breast Screening study that Kopans' referred to previously. That Canadian physician is Cornelia J. Baines, M.D. from the University of Toronto in Canada.

Dr. Baines wrote, "The inescapable fact that there is no compelling evidence as yet to support breast cancer screening in women aged 40 - 49 years offers a stark contrast to the established efficiency of screening women 50 years of age and older." She quoted Jay Harris' report in the *Journal of National Cancer Institute* this year stating, that "in older women, mammography achieved a 30% reduction in breast cancer mortality regardless of the vintage of the

mammographic technology (1960s, 1970s or 80s) regardless of whether one or two views were taken, whether a one or two year interval between screens occurred or whether a clinical examination was performed."

Dr. Baines questioned "where opinions diverge is whether one should apply intervention before there is firm evidence of its efficacy."

The Massachusetts General group of Kopans et al responded to that. Kopans noted "the preponderance of data suggests that screening women aged 40 - 49 years will provide the same if not greater benefit, for women aged 40 - 49 as those aged 50 - 59 years." He goes on to say, "The Edinburgh trial now has a 22% mortality reduction for women aged 40 - 49 years. In May, the investigators for the Gothenburg Trial updated their results for women aged 40 - 49 years and revealed a 40% decrease in breast cancer death for the screened women despite the fact that 30% of the women in the screened group, who died of breast cancer, had refused screening (they are still counted as having been screened.)" The investigators clearly stated that "the mortality benefit came from the women whose cancers were detected in their 40s and not, as some have suggested, because they had reached the magical age of 50." The Harvard-based group concluded, "There has been clear evidence and now statistically significant "proof" that there is mortality benefit from screening women from age 40 - 49 years by mammography.

Mammographic screening is not the ultimate solution to the problem of breast cancer, and the intense research should be encouraged to find a universal cure, methods of prevention, or methods for earlier detection. It is no sufficient, however, to suggest that we should ignore the present and look to the future for solutions. There is no reason to believe that a solution is near, and wishful thinking will not save lives. Until other solutions are available, or a population in which screening should be concentrated is defined, the available data shows a benefit for women aged 40 - 49 years. Health policy makers may decide otherwise, but women and their physicians should know that screening beginning by age 40 can reduce mortality from breast cancer."

Thus, the debate continues for ages at which mammography is best suited. It is decision best made by women and their physicians.

Certainly all women should be encouraged to perform monthly self-examination and undergo physician examination at the time of routine medical evaluation. Women with a family history as well - especially when a pre-menopausal family member has been diagnosed with breast cancer - should start the mammographic evaluation at an earlier age. For the vast majority of women who do not have a pre-menopausal family member with breast cancer, the starting date for mammography remains - to a large extent - a personal choice.