SBI comments on new Kopans article in JACR

In an upcoming article in the Journal of the American College of Radiology (JACR), Dr. Daniel B. Kopans, M.D calls for the New England Journal of Medicine (NEJM) to withdraw a recent paper [1] that had suggested mammography screening was leading to massive "overdiagnosis" - cancers that would never become evident if they had not been detected by mammography. This paper was widely covered in the media, and has been used to suggest that screening services should be reduced or curtailed.

Dr. Kopans is professor of Radiology at Harvard Medical School and is an internationally recognized expert in breast cancer screening. The opposing view is presented by neuroradiologist David Seidenwurm, MD. The opposing points highlight the dangers and inconsistencies that occur when those outside of the field of breast cancer diagnosis and treatment try to interpret subspecialized data. SBI, together with the Breast Commission of the ACR, have provided a letter to the NEJM pointing out several of the methodological flaws that Dr. Kopans so nicely outlines in his JACR editorial. Our letter was co-signed by ASTRO, the American Society of Breast Surgeons, the Society of Surgical Oncology, the American Society of Breast Disease, the European Society of Breast Imaging, the Canadian Society of Radiology, as well as our international colleagues Martin Yaffe, PhD, and Laszlo Tabar, MD, FACP. These societies and individuals have extensive expertise in the data surrounding breast cancer. We uniformly expressed the same concerns regarding this paper. You may view the letter on our SBI website.

Dr. Kopans makes it clear that the paper was not based on actual scientific measurements of individual women, but rather on "estimates and assumptions". We agree. Dr. Kopans' analysis is sound and based on years of experience assessing mammography screening. Experts in our field need to be heard. As we pointed out in our multi-society letter to the NEJM, a reasonable discussion of both the benefits and risks of mammography is welcome, but using poor assumptions and statistical manipulations in place of direct data is suboptimal. We were disappointed that the NEJM declined to publish our letter. SBI recommends that Dr. Kopans' critique of the Bleyer/Welch paper be taken seriously. It is unfortunate that Dr. Seidenwurm takes the Bleyer/Welch paper as instructive and that he fails to see dangerous errors made in the name of science. Our journals need to present solid, evidence-based results. To do otherwise, jeopardizes our integrity and, ultimately, the health of our patients.

Some key points from Dr. Kopans:

- Dr. Kopans points out that these estimates and assumptions are actually wrong. The article by Dr. Bleyer and Dr. Welch claimed that, in the absence of screening, the incidence of breast cancer would have increased at 0.25% each year over the period of review. Dr. Kopans
shows that the data actually suggest that the rate would have been 4 times as high based on over 40 years of information that he says the authors ignored (see graphic below). Dr. Kopans states "If they had used the correct extrapolation they would have found that the actual number of invasive breast cancers diagnosed in 2008 was slightly lower than what would have been expected. This means that there is no "overdiagnosis" as numerous scientific studies have shown. Bleyer and Welch are simply incorrect, and their paper should be withdrawn."

Kopans goes on to point out that the authors added Ductal Carcinoma together with small invasive cancers which no other analysts have done because they are two separate issues. Dr. Kopans suggests that this only diluted the results for small invasive cancers which are the lesions that, when treated, save lives. Dr. Kopans points out that "Dr. Bleyer has suggested in interviews that had they used the correct extrapolation (the 1% per year suggested by the data) there would have still been 30,000 additional cases. What he seems to not understand is that these are the DCIS lesions. This completely reinforces my point."
There has been no overdiagnosis of invasive cancers and this paper should be withdrawn."

Dr. Kopans is also critical of what he calls a publication bias at the New England Journal of Medicine, one of the most respected journals in the World. Dr. Kopans adds "Look, the NEJM is the journal of my own medical school. I know some of the editorial staff. The facts are that they have a clear publication bias against mammography screening and, in particular screening for women ages 40-49. They have prevented the publication of important papers on breast cancer screening in the NEJM. I would be happy to go over this in detail with them, but they have refused any discussion. This is a major ethical failure at the NEJM."