Extended Abstract

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3rd International Conference on Radiology and Imaging August 24-26, 2015 , Toronto, Canada - Mammographic screening: Is it relevant to developing countries?

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In the First world Mammogram screening for breast cancer is well established, its value, however, continues to be questionable. Multiple recent studies have shown that mammogram screening programs lead to increased costs and unnecessary further testing with no benefit to the patient. Mammography screening for breast cancer is widely available in many countries. Initially praised as a universal achievement to improve women's health and to reduce the burden of breast cancer, the benefits and harms of mammography screening have been debated heatedly in the past years. This review discusses the benefits and harms of mammography screening in light of findings from randomized trials and from more recent observational studies performed in the era of modern diagnostics and treatment. The main benefit of mammography screening is reduction of breast-cancer related death. Relative reductions vary from about 15 to 25% in randomized trials to more recent estimates of 13 to 17% in meta-analyses of observational studies. Using UK population data of 2007, for 1,000 women invited to biennial mammography screening for 20 years from age 50, 2 to 3 women are prevented from dying of breast cancer. All-cause mortality is unchanged. Overdiagnosis of breast cancer is the main harm of mammography screening. Based on recent estimates from the United States, the relative amount of overdiagnosis (including ductal carcinoma in situ and invasive cancer) is 31%. This results in 15 women overdiagnosed for every 1,000 women invited to biennial mammography screening for 20 years from age 50. Women should be unpassionately informed about the benefits and harms of mammography screening using absolute effect sizes in a comprehensible fashion. In an era of limited health care resources, screening services need to be scrutinized and compared with each other with regard to effectiveness, cost-effectiveness and harms In developing countries clinical breast examination can be equally useful and more cost effective than mammograms, as shown by Mittra in 1995. Breast cancer presents at a later stage and in the pre-menapausal age group in the developing world.

Mammograms can be used to check for breast cancer in women who have no signs or symptoms of the disease. This type of mammogram is called a screening mammogram. Screening mammograms usually involve two or more x-ray pictures, or images, of each breast. The x-ray images often make it possible to detect tumors that cannot be felt. Screening mammograms can also find microcalcifications (tiny deposits of calcium) that sometimes indicate the presence of breast cancer. Mammograms can also be used to check for breast cancer after a lump or other sign or symptom of the disease has been found. This type of mammogram is called a diagnostic mammogram. Besides a lump, signs of breast cancer can include breast pain, thickening of the skin of the breast, nipple discharge, or a change in breast size or shape; however, these signs may also be signs of benign conditions. A diagnostic mammogram can also be used to evaluate changes found during a screening mammogram or to view breast tissue when it is difficult to obtain a screening mammogram because of special circumstances, such as the presence of breast implants. The unreliability of this modality as a screening tool is well recognized in this population thus further questioning its suitability. In many third

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world countries mammograms are costly and unavailable to the general population thus hindering screening. The different characteristics of breast cancer presentation in the third world coupled with cost and availability issues suggest that mammographic screening may not be beneficial in developing countries. Financial resources may be better directed to managing other aspects of the disease

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