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Reply

We appreciate Dr. Wang's[1] comments on our recently published article in JCMA.[2] Dr. Wang has exhibited great concern about the cost-effectiveness of mammographic screening, given that the incidence rate (IR) and mortality rate of breast cancer both increased after initiation of this screening program. It has been shown that this screening program is considerably inferior to the clinical outcome of Pap smear screening in cervical cancer. After decades of development, Pap smear for use in cervical cancer screening has achieved a significant clinical outcome - the IR of invasive cervical cancer is lower than that of precancer lesions.[1] The risk factors of breast cancer are multifactorial, including race, age, gene, hormone, diet and so on. Therefore, it is impractical to expect to reduce the IR of breast cancer from mammographic screening, or further enhance cervical cancer screening by Pap smear. A screening program is used to detect lesions at an earlier stage, and hopefully reduce subsequent medical expense and mortality. The increased IR and mortality rate of breast cancer in recent years underscores the importance of this medical issue. The 33% two-year coverage rate of the nationwide mammographic screening is still less than optimal as compared with that of Pap smear (57%) in cervical cancer. But the increased cancer detection rate (from 3.94 to 5.04‰) with elevated early cancer detection (from 15.7% in 2004 to around 40% in recent years) also indicates that the interpreting skills of screening radiologists have improved, as well as the overall mammographic screening outcome.

We agree with Dr. Wang's opinion that the subsequent medical charge and emotional challenge after an unnecessary recall remain a notable concern. In a screening program, even the cytological diagnosis of Pap smear may have false positive- or negative results, not to mention the diagnostic vagaries presented in mammographic screening. To achieve a reasonable recall rate percentage for both false positives and negatives alike, we have conducted a mammographic screening peer reviewing and medical auditing system in Taiwan.[3] Currently, the above-mentioned data are all nearly within the American College of Radiology (ACR) recommended level. Regarding the next step in abnormal mammography screening, there is already a well-established BI-RADS system[4] to follow. Mammograms assessed as BI-RADS 1,2 or 3 (recommends short-term follow-up) are defined as negative, while those assessed as BI-RADS 0 (needs additional examination), 4 or 5 are defined as positive. Additional imaging modalities such as 3-D tomosynthesis,[5] contrast tomosynthesis[6] or breast MRI[7] may also be used to alleviate the incidence of unnecessary recall or biopsy. However, further analysis of the financial cost and emotional support is beyond the scope of this article.

Conflicts of interest

The authors declare that there are no conflicts of interest related to the subject matter or materials discussed in this article.

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