

12:00 - 12:30

Possibility of breast cancer screening with MRI

The Annual Korean Breast Screening Society Meeting

Breast Center, Kameda Medical Center, Chiba, Japan.

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Breast cancer has the highest incidence rate among Japanese women, and among this group it tends to occur in the late forties. Because the limitations of X-ray mammography are well known in dense breast tissue, screening for breast cancer with ultrasound has just started in Japan. One of the current problems of breast cancer screening with B-mode ultrasound is that too many benign hypoechoic nodules are depicted.

In contrast, breast MRI has emerged as a highly sensitive technique for the imaging of breast cancers. In the current paper (Kuhl CK et al. Lancet, 2007), 153 (92%) of cases with pure ductal carcinoma in situ (DCIS) were diagnosed by MRI and 93 (56%) by mammography ($p < 0.0001$). Of the 89 high-grade DCIS, all 43 (48%) cases missed by mammography were detected by MRI. Moreover, among the patients

at high risk for breast cancer, MRI was thought to be the most sensitive modality compared with mammography and ultrasound from the results in Europe and the United States (mammography:16 - 40%, ultrasound:16 - 40%, MRI:77 - 100%) (the March 2007 American Cancer Society guidelines for MRI screening).

In several Japanese hospitals, the clinical usefulness of non-contrast MRI that combines diffusion-weighted imaging and T1-, T2-WI has been investigated prospectively for the patients with equivocal or suspicious findings on screening ultrasound. Now, we should evaluate the benefits and limitations of breast MRI screening and screening ultrasound among Asian populations. In this meeting, we discuss the potential role, limitations and harms of breast cancer screening with MRI.