Breast Cancer (2010) 17:158
DOI 10.1007/s12282-009-0194-9

Digital mammography in Japan

Takayoshi Uematsu

Published online: 14 January 2010

Foreword

Digital mammography has been proposed as an alternative to screen-film mammography. Previous publications have reported the equivalent performance of digital and film mammography [1, 2], and digital mammography has some advantages over film mammography [3, 4],including many technical advantages, including image-enhancement capability, faster image acquisition, and better storage and transmission for archiving. Its full potential can only be achieved through soft-copy reading.

More than 70% of the facilities in Japan have digital mammography systems. However, most of the digital mammography systems use computed radiographic mammography and only about 10% of the facilities have full-field digital mammography systems. In addition, there are few facilities with soft-copy reading of digital mammography in Japan. This situation is remarkable, because most of the digital mammography systems worldwide are full-field digital mammography systems with soft-copy reading.

Because the soft-copy reading of digital mammography involves very complex processes, some issues have been raised. For the special articles in this issue, a group of recognized and experienced experts, based on the Mammography Subcommittee of the Japan Radiological Society, were assembled. These experts have put together a monograph on digital mammography. The special articles provide a comprehensive review and update on digital mammography, especially in Japan. They will serve as an excellent reference source for anyone interested in digital mammography.

References

1. Lewin LM, Hendrick RE, D'Orsi CJ, Isaacs PK, Moss LJ, Karellas A, et al. Comparison of full-field digital mammography with screen-film mammography for cancer detection: results of 4,945 paired examinations. Radiology. 2001;218:873–80.
2. Skaane P, Skjennald AS. Screen-film mammography versus full-field digital mammography with soft-copy reading: randomized trial in a population-based screening program-the Oslo 2 study. Radiology. 2004;232:197–204.
3. Pisano ED, Gatsonis C, Hendrick E, Yaffe M, Baum JK, Acharyya S, et al. Diagnostic performance of digital versus film mammography for breast-cancer screening. N Engl J Med. 2005;353:1773–83.
4. Skaane P, Hofvind S, Skjennald AS. Randomized trial of screen-film versus full-field digital mammography with soft-copy reading in a population-based screening program: follow-up and final results of Oslo 2 study. Radiology. 2007;244:708–17.

T. Uematsu (✉)
Department of Breast Imaging and Breast Intervention,
Breast Center, Shizuoka Cancer Center Hospital, Naga-izumi,
Shizuoka 411-8777, Japan
e-mail: t.uematsu@scchr.jp

T. Uematsu
Department of Clinical Physiology, Shizuoka Cancer Center
Hospital, Naga-izumi, Shizuoka 411-8777, Japan