Abstracts

Radiometric sensing: an adjuvant to mammography to determine breast biopsy

K.L. Carr, P. Cevasco, P. Dunlea and J. Shaeffer. "Radiometric sensing: an adjuvant to mammography to determine breast biopsy." 2000 MTT-S International Microwave Symposium Digest 00.2 (2000 Vol. II [MWSYM]): 929-932.

Radiometric sensing, ONCOSCAN, is a noninvasive test of thermal activity in the breasts which measures microwave emissions by passive microwave radiometry. Microwave radiometric sensing will be shown to be a promising technique which, when combined with mammography, could be useful in reducing non-cancerous breast biopsies based on mammographic false positives, thereby improving the positive predictive value (PPV) of mammography. PPV is defined as the number of malignancies per number of biopsies performed. At the time of this writing, more than 90 women scheduled for open breast biopsy based on abnormal mammographic findings underwent ONCOSCAN testing prior to biopsy. These abnormal mammographic findings basically non-palpable. Various algorithms have been devised, following knowledge of biopsy outcome which separated the ONCOSCANs into those with low or high thermal activity.

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