

Thermalytix: An Advanced Artificial Intelligence Based Solution for Non-Contact Breast Screening

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Abstract : Diagnosis of breast cancer at early stages has seen better clinical and survival outcomes. Survival rates in developing countries like India are very low due to accessibility and affordability issues of screening tests such as Mammography. In addition, Mammography is not much effective in younger women with dense breasts. This leaves a gap in current screening methods. Thermalytix is a new technique for detecting breast abnormality in a non-contact, non-invasive way. It is an AI-enabled computer-aided diagnosis solution that automates interpretation of high resolution thermal images and identifies potential malignant lesions. The solution is low cost, easy to use, portable and is effective in all age groups. This paper presents the results of a retrospective comparative analysis of Thermalytix over Mammography and Clinical Breast Examination for breast cancer screening. Thermalytix was found to have better sensitivity than both the tests, with good specificity as well. In addition, Thermalytix identified all malignant patients without palpable lumps.

Keywords : breast cancer screening, radiology, thermalytix, artificial intelligence, thermography

Conference Title : ICBCM 2018 : International Conference on Breast Cancer Management

Conference Location : Amsterdam, Netherlands

Conference Dates : February 12-13, 2018