[Pseudo color method for the infrared thermogram display of local breast focus tissue].

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Abstract

An infrared thermogram which reflects the human body surface temperature distribution can be obtained through detecting the infrared thermal radiation from each point on the human body surface. When a malignant tumor occurs in a breast, it will cause an increase in the prominent temperature in the breast surface focus region due to the abnormal blood transmission state of local focus tissue. Breast cancer can be detected through the visual analysis of the focus regions by physicians. In order to help physicians better find these focus regions, the present paper improved the traditional pseudo color display method by introducing visual effect factor and made the focus regions have a better display effect. The efficacy of this method was verified in the breast infrared thermograms of 47 breast cancer patients. The result from visual analysis of the focus region in infrared thermogram by this method can also be compared with the tissue blood transmission state from near infrared spectroscopy (NIRS) and other methods. It will be helpful to obtain more accurate diagnostic information.

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