

عنوان مقاله:

Mass Lesions Assessment and Classification based on Expert Knowledge using Mammographic Analysis

محل انتشار: یازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

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خلاصه مقاله:

Tumor is one of the most important indicators of breast cancer in mammograms and classification of them into two groups as benign and malignant is very important. Computer Aided diagnosis (CADx) helps Radiologists to enhance the accuracy of mammography on the decision. Hence, the system is required to support and assess the damage in interaction with radiologists as an expert. In this research classification of breast tumors using mammography in both the main views including MLO and CC is evaluated in the forms, texture and asymmetry terms. Additionally a method was developed and proposed using classification of breast tissue density based on the decision tree. The main objective of this study was to provide a method based on the human decision-making model in order to designing the perfect tool for radiologists, regardless of the complexity of computing and costly procedures and also reducing the diagnosis error. Results show that proposed system for entirely fat, scattered fibroglandular densities, heterogeneously dense, and extremely dense breast achieves 100%, 99%, 99%, and 98% accuracy respectively with .cross-validation procedure

کلمات کلیدی: breast cancer, decision tree, classifier

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