عنوان مقاله:

Assessment of mass segmentation methods in ۳-D ultrasound images

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خلاصه مقاله:

Breast cancer is the most common cancer between women worldwide. Although it is the leading cause of cancer death of women in the world, it can be prevented if it is detected and diagnosed at the early stages. There are various ways of detecting breast cancer varying from mammography to some basic clinical tests and procedures. Automated ۳-D breast ultrasound (ABUS) is one of the most advanced breast cancer detection systems which is used as a complementary modality to mammography for early detection of breast cancer. However, it is notable that screening mammograms is so difficult and time consuming for radiologists due to the large variety in shape, size, and texture of ۳-D masses in these images. Hence, computer-aided detection (CADe) systems could be considered as a second interpreter in order to assist radiologists to increase accuracy and speed. In this paper, we assess different approaches that have been implemented to segment masses in ABUS images. These approaches vary from pure image processing methods to deep neural networks based on which limits, advantages and disadvantages over each other have been compared.

کلمات کلیدی:

Breast Cancer, Mass, ۳D automated breast ultrasound, Segmentation

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