عنوان مقاله:

Magnetic Resonance Imaging–guided High Intensity Focused Ultrasound (MRIgHIFU): Noninvasive Multimodality In Breast cancer treatment

محل انتشار:

یازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

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خلاصه مقاله:

High-intensity focused ultrasound (HIFU) provides focal delivery of mechanical energy deep into the body. This energy can be used to elevate the tissue temperature to such a degree that ablation is achieved. HIFU under magnetic resonance imaging (MRI) guidance (MR-HIFU) is a completely non-invasive technology for accurate thermal ablation of a target tissue while neighboring tissues and organs are preserved. The combination of HIFU with MRI for planning ,real-time monitoring and outcome assessment of treatment markedly enhances the safety of the procedure. Recent technological developments open the field of therapeutic application to the cancer treatment guided imaging. promising results of recent studies have been shown for the treatment of malignant tumors of the prostate, breast and liver and for various intracranial applications, such as thermal ablation of brain tumors. So in this review, we discuss the physical principle and rapid development of MRI-guided HIFU (MRIgHIFU) methods over the past few years and .discuss their future potential in Breast Cancer treatment

کلمات کلیدی:

HIFU, MRI, Breast Cancer