Abstract

The present invention pertains to an ultrasound therapy system and more specifically, to a high-intensity focused ultrasound (HIFU) therapy apparatus guided by image registration and fusion method. The therapy system of the present invention comprises a central control means; an acoustic energy applicator; a mechanical driving and locating means of said acoustic energy applicator; a real-time B-mode ultrasound image guiding device. Further the therapy system of the present invention comprises an immobilization means for body position. By the help of this immobilization means for body position, real-time B-mode ultrasound images can be registered with diagnosis images, and then on the basis of registration, said B-mode ultrasound images are fused with said diagnosis images for guiding said therapy. Comparing to the existed technical solutions in this field, the present invention has effectively solved the difficult problems in high-intensity focused ultrasound therapy and particularly for tumor treatment with a low cost. And it provides a very practical technical solution, which can be easily applied to clinical treatment of tumors.

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