Tumor Extraction by Level Set Method using Threshold Algorithm

Abstract

The level set method may be used as a strongest pawn for segmentation of a tumor to achieve an accurate estimation of its volume. The level set method is a numeric technique for tracking interfaces and shapes. In this method, equation parameters are being set or speed function is being set. A threshold based method is introduced for tumor segmentation. In this paper, tumor segmentation and its extraction is achieved by a threshold based scheme and by utilizing a global threshold, the level set speed function is designed. This threshold based scheme provides better flexibility and it is updated through the whole process. Search based and adaptive bases threshold can be used here for better efficiency through segmentation. Tumor segmentation does not need any vast knowledge about the tumor and non-tumor density function. Depending upon the tumor shape and size, it may be implemented in an automatic or semi-automatic form. Here we use this algorithm for magnetic resonance images (MRI). We see that the performance can be evaluated accurately for quantitatively images. The results from this experiment provide better efficiency and high performance.
Tumor Extraction by Level Set Method using Threshold Algorithm


Index Terms

Computer Science

Algorithms

Keywords