

DETECTION AND EXTRACTION OF BRAIN TUMOR FROM MAGNETIC RESONANCE (MR) IMAGE: REVIEW AND ANALYSIS

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ABSTRACT

Image processing plays an important role in the field of medicine. Medical imaging is a growing and challenging field and is advantageous in diagnosing the disease. As brain tumor is a serious and dangerous disease, medical imaging provides a proper diagnosis of brain tumor. Many techniques are available to detect brain tumor from MRI images. These methods face challenges like finding the location and size of the tumor from the brain. Reliable algorithms are required for the exact position of anatomical structures and other regions of interest through image segmentation. Already, various algorithms are developed for image segmentation. In this review paper, the basic terminologies of brain tumor and MRI images, review of various brain tumor segmentation techniques are analyzed. With increasing use of magnetic resonance imaging for diagnosis, treatment planning and clinical studies, it has become almost compulsory to use computers to assist radiological experts in clinical diagnosis and in treatment planning.

KEYWORDS: Brain Tumor, Human Brain, Image Segmentation, Magnetic Resonance Image, Medical Imaging, Support Vector Machine, Threshold Segmentation