Expounding the MRI Sequences for Computer Aided Diagnosis for Detection of Brain Tumors

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Abstract

Abnormal and uncontrollable growth of the cells causes tumors. Early diagnosis by the physician and proper treatment of the tumors are essential for the prevention of permanent damage of the affected area and so also prevents death. The soft tissues of the body get affected by tumors, brain is one of the commonly affected areas with tumor. The Magnetic Resonance Imaging (MRI) is one of the powerful techniques mainly used for detection of tumors. It is a radiation-based technique which represents the internal structure of the body in terms of intensity variations that are radiated by the biological system when exposed to Radio Frequency (RF). When the brain images are inspected or interpreted one should be aware of the image contrast since the entire information about brain is mapped into intensity variations of the brain MRI images captured during image acquisition the artifacts introduced affect the quality of analysis the physician also needs the quantification of the tumor area [1] hence it is required to an efficient rectifying methodology for removal of these artifacts present in the image before diagnosis. Here in this paper attempt is made to explain the different Sequences of Brain MRI and also enlighten the different computer aided techniques used for segmentation, and
bring forward one of the method for tumor detection after Preprocessing.

References

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Index Terms

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