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Magnetic Resonance Imaging: A Dynamic Area of Medical Image Processing for Detecting Brain Tumors

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INTRODUCTION

Medical image processing is a most challenging and in-demand field. One of the most challenging processes in image processing, image segmentation determines how accurately the results will turn out. Image segmentation is a process of dividing an image into distinct sections. Segmentation utilizes a library of MRI-scanned determines the classification and identification of cancer from brain MRI images. A tumor is a tissue mass that develops in a disorganized way that normalizes development. Due to its persistent, severe, and infiltrative nature, a brain tumor is intrinsically serious and essential several segmentation strategies exist based on similarity or discontinuity, such as threshold and area-rising approaches. The machine learning methodology has now strengthened these approaches [1-2].

DESCRIPTION

Primary and secondary brain tumors are divided into different categories since primary brain tumors develop in the brain itself such as astrocytomas, glioblastomas multiform and meningiomas and secondary brain tumors are cancer cells that first develop in another part of the body and then spread to the brain. Healthcare professionals may now serve patients with high-quality healthcare thanks to the integration of information technology and e-health care systems in the medical industry. This study uses the classifier function extraction technique and support vector machines to distinguish aberrant brain tissues from normal brain tissues such as grey matter white matter and cerebrospinal fluid. Based on similar attributes, segmentation is used to segment a filtered image in its region. Basically, for further analysis, it is important to retrieve the vital characteristics from an image method is used for thresholding due to its wide uses of segmentation on an image for further processing, such as the binary transformation of an image, as well as to analyze the features. The mechanism of propagation of an image into various components is known as the segmentation of the image. This is usually used in digital images to classify objects or other related information is used here among all the segmentation methods. Neuroblastoma cell lines, most of the efforts have been directed towards characterizing the effects of the microenvironment on cell behavior in terms of proliferation, cell invasiveness and differentiation [3-4].

CONCLUSION

However, it is interesting to note that cells have been successfully exploited for neurodegenerative studies, and in particular articles. Indeed, they are usually chosen for their catecholaminergic though not strictly dopaminergic neuronal properties. The ability to produce *in vitro* models with neural cells has been fundamental to advancing the understanding of the central nervous systems function at the microscale, as well as of the disease mechanisms underlying neuropathologies and neurotoxicity. We argue that some of the challenges associated with culturing primary neural cells or stem cells could be overcome with the use of neural cell lines. Indeed, since these cells express human-specific proteins and have a complete human genomic profile, they have successfully been used for different applications. The perspectives improving the development of more physiologically relevant 3D models of the human brain leveraging neuronal cell lines three-dimensional models can recapitulate the salient features of neurodegenerative diseases at the micro scale and, with respect to 2D models they better resemble features of *in vivo* tissues. The use of NPC lines in 3D models allows the generation of a greater level of physiological relevance since different types of neural cells can be represented.

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CONFLICT OF INTEREST

The author declares there is no conflict of interest in publishing

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