Abstract

In this research work, to understand the types of cancer cell and attempt to analyses the biopsy slides. In this method to identify cancer parts just using simple technique of isolation of insignificant portion of biopsy slide by cancer cell level and object level segmentation and classification. Many features used in the cancer cell detection and classification of biopsy image are inspired by clinical pathologists as important for diagnosis, prognosis and characterization. A large majority of these features are features of cell nuclei in biopsy image; as such, there is often the desire to segment the image into individual cell nuclei and cancer object. In this paper, present an analysis of the utility of color Thresholding, adaptive Thresholding and watershed method for segmentation of cancer cell nuclei for classification of H&E stained histopathology image of breast tissue using neural network. This paper showing the cell level and object level classification performance using these segmented nuclei in a benign versus malignant. Results indicate that very good segmentation and classification accuracies can be achieved with color Thresholding, adaptive Thresholding, watershed based segmentation of cancer cell nuclei and cancer objects and classification of biopsy image.

References

- Ajay Nagesh Baravanhalty, Shridar Gancean, Shannan Agner, James Peter Monaco,
“Cancer Cells Detection and Classification in Biopsy Image”


C. Zhu, E.S. Burnside, G.A. Sisney, L.R. Salkowski, J.M. Harter, B.Yu, and N.

**Index Terms**

Computer Science  
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**Keywords**

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