Preliminary process in blast cell morphology identification based on image segmentation methods

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Abstract	The diagnosis of blood disorders in developing countries usually uses the diagnostic procedure Complete Blood Count (CBC). This is due to the limitations of existing health facilities so that examinations use standard microscopes as required in CBC examinations. However, the CBC process still poses a problem, namely that the procedure for manually counting blood cells with a microscope requires a lot of energy and time, and is expensive. This paper will discuss alternative uses of image processing technology in blast cell identification by using microscope images. In this paper, we will discuss in detail the morphological measurements which include the diameter, circumference and area of blast cell cells based on watershed segmentation methods and active contour. As a basis for further development, we compare the performance between the uses of both methods. The results show that the active contour method has an error percentage of 5.15% while the watershed method has an error percentage of 8.25%.
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