

ABSTRACT

Nodular melanoma is a rare type of skin cancer with characteristics asymmetrical shape, border irregularity, nonhomogeneous or has several color variations and the diameter is more than 6 millimeters. Nodular melanoma causes severe pain and bleeding even cause death in some cases. Nodular melanoma can be detected from melanocytic nevi spread throughout the body. This research aims to detect nodular melanoma through melanocytic nevi by utilizing the android system in order to ease the user by using a portable single tool in detecting cancer. This application uses image processing and extraction features of the ABCD method to process images into a potential diagnosis of cancer. The ABCD method is a medical method used to detect the possibility of cancer using 4 parameters including asymmetrical shape, border irregularity, color and diameter. The data are obtained from the results of the android-based smartphone camera shooting test and presented in table and described informatively. This application will produce a diagnosis to the user. The result is that the accuracy of this application is 97,5%.

Keyword : *nodular melanoma, android, smartphone, image processing, ABCD.*