Classification of Breast Cancer Diagnosis (Pathology) Breast Cancer Patients at Hospital "X" Surabaya with Classification and Regression Trees (CART) Approach

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ABSTRACT
Breast cancer is a disease most common in women. Early examination conducted to determine whether the breast is normal or abnormal. If there are abnormalities, it will do further tests. The results of the investigation, led to the diagnosis of breast cancer (pathology), which revealed the cancer is benign or malignant. To explore the distribution and characteristics of the results of anatomic pathology classification needs to be done. The study was conducted to provide an alternative classification, especially for tracking the results of pathology characteristics of breast cancer patients. The method of Classification and Regression Trees (CART) will produce some results of anatomic pathology groups that have a relatively more detailed characteristics. These results indicate that the variables that affect the classification results based on the pathology of the largest order of contribution is Birads Category, Suspicious for malignancy, Intermediate Findings, age, location of the cancer and the result of an ultrasound examination. The resulting classification accuracy is equal to 90.19%.

Keyword: Classification and regression trees (CART), Pathology of Breast Cancer, Mammography, Ultrasound.