

ABSTRACT

**CORRELATION BETWEEN RECEPTOR ESTROGEN HORMONAL
STATUS WITH INVASIVE DUCTAL TYPE OF BREAST CANCER
MALIGNANCY IN RSUD DR. SOETOMO 2015-2017**

Background: Globocan data, shows the incidence of cancer in Indonesia at 136.2 per 100,000 population. The highest case in female is breast cancer at 42.1 per 100,000 population. The most common type of breast cancer is invasive ductal type. The life possibility of patients with a high degree of malignancy (Grade III) is only 11.86% while for patients with a low degree of malignancy (Grade I) can reach 71.69%. Exposure to estrogen is a risk factor for breast cancer. This hormone show its effects through estrogen receptor which is a core protein. Patients with positive receptor have a better 5 to 10 years survival rate than patients with negative estrogen receptor, because patients who have this receptor will respond to hormonal therapy.

Aim: Identifies the correlation between receptor estrogen hormonal status and invasive ductal type of breast cancer malignancy.

Methods: This study was an observational analytic study with a cross sectional approach. The used sample were the patients medical record data from 2015 to 2017. The data was processed using the Chi-square correlation test.

Result: The used data were 694 patients medical record data from 2015 to 2017. Patients who had positive receptor (+) estrogen hormonal status with Grade I cancer malignancy were 56 patients (86%), Grade II were 180 patients (70%), and Grade III were 217 patients (45%). Patients who had a negative receptor (-) estrogen hormonal status with Grade I cancer malignancy were 9 patients (14%), Grade II were 71 patients (28%), and Grade III were 161 patients (34%). The results of the analysis using the Chi-square test is 27.413 Chi-square value with a significance value of 0.000 ($p < 0.01$).

Conclusion: There is a significant correlation between receptor estrogen hormonal status with invasive ductal type of breast cancer malignancy.

Keywords: *Invasive ductal carcinoma, hormonal receptors, ER, histological grade.*