ABSTRACT

PROFILE OF ESTROGEN RECEPTOR AND PROGESTERONE RECEPTOR EXPRESSIONS WITH HISTOPATHOLOGICAL GRADING ON PREMENOPAUSAL BREAST CANCER IN RSUD DR. SOETOMO SURABAYA

**Background:** Breast cancer is the most common cancer type affecting women. Premenopausal breast cancer has worse prognosis compared to postmenopausal breast cancer. Previous studies has established that premenopausal breast cancer is associated with dangerous pathological factors such as high grade tumors and negativity of hormone receptors.

**Objective:** This study aims to evaluate the correlation between estrogen receptor and progesterone receptor expression with histopathological grading on premenopausal breast cancer.

**Materials and Method:** This study is a descriptive analysis of the correlation between ER and PR expression with histopathological grading on women with premenopausal breast cancer (aged ≤ 50 years old) treated in Poli Onkologi Satu Atap RSUD Dr. Soetomo from May 8, 2017 to June 8, 2017. The data of ER, PR expression and histopathological grading is analyzed using chi square test and descriptive statistics on IBM SPSS Statistic 23. The result is significant if \( p \leq 0.05 \).

**Result:** The distributions of sample characteristics according to histopathological grading are 12.7% grade 1, 43.9% grade 2, and 43.4% grade 3. Distributions of sample characteristics according to ER expressions are 25.4% ER- and 74.6% ER+, and distributions according to PR expressions are 27.2% PR- and 73.8% PR+. Analysis of correlation between ER expression and PR expression with histopathological grading does not show a significant result (\( p = 0.109 \)), on the other hand, there is a significant negative correlation between PR expression and histopathological grading (\( p = 0.013 \)). The more positive the PR, the lower the histopathological grade.

**Conclusion:** Negative correlation between PR expression and histopathological grade on premenopausal breast cancer is observed.

**Keyword:** Breast Cancer, Premenopausal, ER, PR, Histopathological Grading