Prevalence of Androgen Receptor in Thai Early Breast Cancer Patients

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Background: There are many biomarkers to predict treatment of breast cancer. The androgen receptor (AR) is one of the novel biomarkers in breast cancer. However, the prevalence of AR and its related factors in Thai breast cancer patients are not well studied.

Objective: The aim of this study was to investigate prevalence and related factors of AR expression in early breast cancer patients receiving treatment at Bhumibol Adulyadej Hospital.

Methods: Clinical data of early breast cancer was retrospectively reviewed. Paraffin-embedded tissue was stained with immunohistochemistry for AR expression using AR-411 clone. Related clinical factors of AR expression were analyzed with Chi-square or T-test.

Results: AR was expressed in 25 patients, 65.8% (95%CI 50.7%- 80.9%). AR expression was correlated with estrogen receptor expression (p = 0.016) and low nuclear grading (p = 0.036). In contrast, its expression was not associated with ErbB2 expression, staging, menopausal status, and body mass index.

Conclusion: Expression of AR in Thai early breast cancer is common. AR expression is correlated with estrogen receptor expression and low nuclear grading. Further study on its significance and AR inhibitor is warranted.

Keywords: Androgen receptor, Early breast cancer, AR-411