Abstract

Androgen Receptor Expression in Triple Negative Breast Cancer in Ramathibodi Hospital

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**Background:** The objective was to evaluate the prevalence of androgen receptor expression in triple negative breast cancers and association between androgen receptor expression and clinicopathological parameters in Ramathibodi hospital.

**Method:** We conducted a retrospective cohort study assigned 86 patients of triple negative breast cancer at Ramathibodi hospital from July 1, 2010 to July 31, 2012 to investigate immunohistochemical androgen receptor expression from tissue, and analyzed demographic and outcomes.

**Results:** Out of the 86 TNBC, 97.67% were histologically identified as invasive ductal carcinomas, 63.95% were post-menopause, 8.14% had family history, 26.74% showed positive immunostaining for androgen receptor (AR). AR expression was correlated with low Ki-67 index ($P = 0.005$) but was not correlated with other clinicopathological parameters. With the median time to follow up period of 16.8 months, there was not different in median PFS in patients with AR expression and AR nonexpression 16.0 vs. 13.6 months, respectively (HR 0.73, $P = 0.221$). The median time to recurrence was longer in AR expression compared with AR non-expression patients, 21.9 months vs. 5.3 months respectively but no statistical significance.

**Conclusion:** Evaluation of AR expression may be an important role in the treatment of TNBC in the future. The survival analysis was not completely analyzed due to short of follow-up. Further clinical studies and treatment with anti-androgen should be tested as a new therapeutic agent in TNBC.