ABSTRACT

Aromatase inhibitors induce apoptosis and inhibit breast cancer cell growth through the binding of estrogen receptor-α (ER-α). Endocrine resistance of ER-α positive breast cancer is a major limiting factor for the use of aromatase inhibitors. Aromatase inhibitors are known to interact with estrogen, but the effect on the androgen receptor (AR) is less known. Moreover, AR plays a crucial role in breast cancer. The objective of this study was to investigate the effect of aromatase inhibitors on the expression of AR. The cells were treated with different concentrations (10-100 nM) of aromatase inhibitors (e.g. letrozole, exemestane, anastrozole) for 24 hours and the expression of AR was determined by Western blotting. The results showed that the expression of AR was decreased in both MCF-7 and T47D cells when treated with aromatase inhibitors. These findings suggest that aromatase inhibitors can affect the expression of AR in breast cancer cells, which may have implications for the treatment of breast cancer.

RESULTS

The expression of AR was decreased in both MCF-7 and T47D cells when treated with aromatase inhibitors. These findings suggest that aromatase inhibitors can affect the expression of AR in breast cancer cells, which may have implications for the treatment of breast cancer.