ABSTRACT

Metastatic breast cancer (mBC) remains incurable, with a median overall survival (OS) of approximately three years and a five-year survival rate of approximately 25%, irrespective of the economic classification of the country where treatment is received. Cyclin-dependent kinase (CDK) inhibitors increase overall survival in both first and second-line settings in the treatment of human epidermal growth factor receptor 2 (HER2)-negative, hormone receptor (HR)-positive mBC. This retrospective cohort study investigated the progression-free survival in women with mBC receiving combination therapy with abemaciclib (CDK4/CDK6 inhibitor) and letrozole or fulvestrant as opposed to abemaciclib only. The study included all eligible women with stage IV breast cancer treated with abemaciclib at a private oncology facility in Johannesburg over the study period. Data was collected from medical records for the period 01 April 2019 to 31 March 2021. In women with stage IV mBC, analyses were performed to evaluate the overall survival rate, the likelihood of progression-free survival, and the safety of abemaciclib. The progression-free survival probability was 60% after a period of 17 months irrespective of treatment options. After 17 months, the OS of women on a combination of abemaciclib and letrozole was 80%, a combination of abemaciclib and fulvestrant was 80%, and abemaciclib monotherapy was 70%. The most noted adverse effects were diarrhoea (92.0%), fatigue (48.0%), hepatotoxicity (16.0%) and neutropenia (92.0%). Abemaciclib with endocrine therapy or an aromatase inhibitor (AI) provided an improvement in the OS compared to abemaciclib monotherapy. These findings are representative of the use of abemaciclib in a local population and are similar to those of larger studies carried out internationally.

Key words: abemaciclib, breast cancer, progression-free survival