Background and importance

Palbociclib is a selective cyclin-dependent kinase 4/6 (CDK4/6) inhibitor approved for the treatment of hormone receptor-positive, human epidermal growth factor receptor 2-negative (HR+/HER2−) locally advanced or metastatic breast cancer (LA/MBC). Neutropenia is the most common adverse event. In contrast to neutropenia induced by chemotherapy agents, neutropenia resulting from CDK4/6 inhibitors is reversible and dose reductions and modifications are recommended.

Aim and objectives

The aim of this study was to evaluate the neutropenia due to palbociclib and to analyze how modifications in treatments are made in clinical practice.

Material and methods

Descriptive, observational and retrospective study (April 2016 -July 2022) of patients treated with Palbociclib

- Farmatools®
- Electronic medical records

Results

- N: 50 women
- Diagnostic: HR+/HER2− MBC
- Median age 62 years.
- Postmenopausal state: 92%
- Palbociclib as first-line: 54%

Frequency of neutropenia (all-grade): 74%

Grade 1-2: 27%  Grade 3-4: 73%

Time from first dose to first episode onset:

Dose reduction: 54%:

- 32%: a dose reduction
- 21,6%: two doses reductions

Cycles delays 78%

Treatment with G-CSF 19%

Change to another CDK4/6 inhibitor 5,4%

Discontinued treatment 10,8%

Conclusion and relevance

The frequency of neutropenia in our population was similar to clinical trials. In clinical practice this toxicity can be managed with dose reduction and cycles delays without lead to discontinuation treatment (only 10,8%) as it is described in guidelines.