2nd GBO Meeting: Going Beyond in Oncology

DRUG SELECTION GROUP (Presti Daniele, Agostinetto Elisa, De Angelis Claudia, Labianca Alice)

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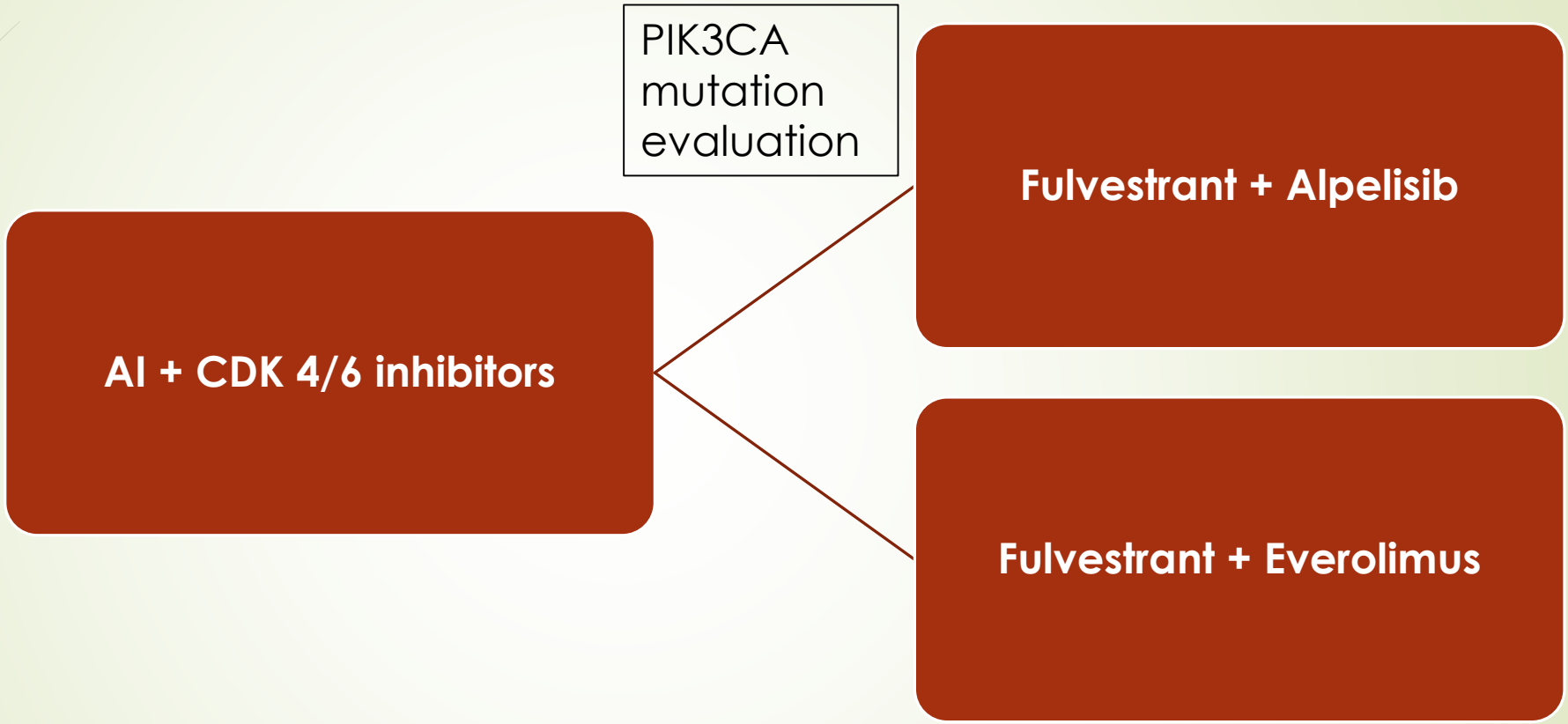
Background:

- CDK4/6 inhibitors in addition to endocrine therapy have demonstrated improved survival in luminal advanced breast cancer. This combination is the current standard of care as first line therapy in advanced hormone receptor-positive (HR+) human epidermal growth factor receptor 2 negative (HER2-) breast cancer.
- It is still not clear what could be the best therapy after progression to CDK4/6 inhibitors.
- Possible options could be an everolimus-based therapy or PI3K inhibitors in association with fulvestrant.
- *PIK3CA* mutations occur in approximately 40% of patients with HR+ HER2- breast cancer. The PI3Ka-specific inhibitor alpelisib, combined with fulvestrant, has shown antitumor activity in early studies (SOLAR-1 trial; Andrè F. et al).
- The addition of everolimus to fulvestrant had demonstrated to improve the median progression-free survival from 5.1 to 10.3 months (hazard ratio, 0.61 [95% CI, 0.40 to 0.92]; stratified log-rank P = .02) (PrE0102 trial, Kornblum N. et al).

Aim of the study:

- The aim of our study is to compare the association between fulvestrant and alpelisib versus fulvestrant and everolimus in patients affected by luminal advanced breast cancer progressed on first line therapy with CDK 4/6 inhibitor + AI and with evidence of acquired or pre-existing *PIK3CA* mutation.

Study Design



Patients will be evaluated for PIK3CA mutation on blood samples at the time of the randomization. Patients will be also stratified according to acquired or pre-existiting PIK3CA mutation at the baseline.

Endpoints

- **Primary endpoint**: PFS
- **Secondary endpoints**: OS, ORR, CBR, safety, quality of life

- Pre-specified subgroups analysis according to acquired or pre-existing PIK3CA mutation at the baseline will be performed

Thanks for your attention!