

Pharmacokinetics of Selected Anticancer Drugs in Elderly Cancer Patients: Focus on Breast Cancer

Marie-Rose B S Crombag, Markus Joerger, Beat Thürlimann, Jan H M Schellens, Jos H Beijnen & Alwin D R Huitema

BACKGROUND

Elderly patients receiving anticancer drugs may have an increased risk to develop treatment-related toxicities compared to their younger peers. However, a potential pharmacokinetic (PK) basis for this increased risk has not consistently been established yet. Therefore, the objective of this study was to systematically review the influence of age on the PK of anticancer agents frequently administered to elderly breast cancer patients.

METHODS

A literature search was performed using the PubMed electronic database, Summary of Product Characteristics (SmPC) and available drug approval reviews, as published by EMA and FDA. Publications that describe age-related PK profiles of selected anticancer drugs against breast cancer, excluding endocrine compounds, were selected and included.

RESULTS

This review presents an overview of the available data that describe the influence of increasing age on the PK of selected anticancer drugs used for the treatment of breast cancer.

CONCLUSIONS

Selected published data revealed differences in the effect and magnitude of increasing age on the PK of several anticancer drugs. There may be clinically-relevant, age-related PK differences for anthracyclines and platina agents. In the majority of cases, age is not a good surrogate marker for anticancer drug PK, and the physiological state of the individual patient may better be approached by looking at organ function, Charlson Comorbidity Score or geriatric functional assessment.

type	journal paper/review (English)
date of publishing	02-01-2016
journal title	Cancers (Basel) (8/1)