

CHEMOTHERAPY: A LOT IS STILL UNKNOWN, NEW PERSPECTIVES ON THE INFUSION SEQUENCE

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Background

The different metabolic enzymatic implication of the drugs used for chemotherapies infusions make them molecules difficult to manage because drugs that build up a polichemioterapic scheme can increase the cytotoxicity or oppose the desired effect.

Purpose

We would like to stimulate the scientific community in order to start thinking about building a database designed for standardising the infusion sequence of the chemotherapies as a guarantee for the medical treatment. In order to show all the problems that pharmacists daily face, we would like to conduct a bibliographic research for a scheme used in the chemotherapy for lung and ovary cancer: the association between carboplatin and gemcitabine.

Materials and Methods

We analyzed phase I, II and III trials from 1996 to 2006 through a careful evaluation of the documents and considering the pharmacokinetic and pharmacodynamic properties of the two molecules. Most of the studies does not specify in details the infusional sequence but they only describe the gemcitabine and/or plus carboplatin in chemotherapeutic regimen or in the other way around. Therefore we have analysed only the documents that describe in details the infusional sequence.

Results

Most of the studies does not specify in details the infusional sequence but they only describe the gemcitabine and/or plus carboplatin in chemotherapeutic regimen or in the other way around. We have analysed 16 papers discussing the analyzed chemotherapeutic scheme: in 3 studies carboplatin is administered before gemcitabine, 5 studies are designed for the gemcitabine scheme infused before the carboplatin.

Conclusions

With this short paper we have demonstrated that there are a lot of doubts about the "right" infusion sequence of chemotherapeutic drugs. Our hope is that scientific societies will perform additional clinical trials to understand the optimal sequence in order to standardise medical treatments to guarantee their quality.