Author's response to reviews

Title: Pharmacokinetics and safety of cyclophosphamide and docetaxel in a hemodialysis patient with early stage breast cancer: a case report

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Author's response to reviews: see over
Dear Editor:

Please find enclosed our manuscript titled “Pharmacokinetics and safety of cyclophosphamide and docetaxel in a hemodialysis patient with early breast cancer: a case report” for publication as a case report in the Journal of BMC Cancer. Neither the entire paper nor any part of it has been submitted for publication in any other journal.

We believe this case report specifically falls within the scope of your journal and will attract readership. Cancer patients with combination of chronic kidney disease are not uncommon. These patients have an increased risk in chemotherapy treatment because glomerular filtration rate (GFR) reduction resulted in increased drug exposure. So whether or not the drug dose should be adjusted for these patients, particularly those with End-Stage Renal Disease (ESRD), remain unknown to date. Although some studies have focused on the relationship between renal function and drug exposure, it is indeed still lacking in data of the safety and pharmacokinetic characteristics in patients with ESRD, who have to receive both chemotherapy and hemodialysis. In this case report, we showed a hemodialysis patient with early breast cancer, who received standard TC regimen (cyclophosphamide 600 mg/m2, docetaxel 75 mg/m2) as postoperative adjuvant chemotherapy, and the pharmacokinetics and safety data were reported. Pharmacokinetic analyses indicated that compared with the reference data, the in vivo half-life (66.96 hours) and drug exposure (150%) of cyclophosphamide significantly increased, but docetaxel can maintain its pharmacokinetic characteristics as in healthy people. No severe side effects were observed except degree III leucopenia. Four cycles of treatment were smoothly completed. This paper firstly presented the pharmacokinetic data of cyclophosphamide and docetaxel in a hemodialysis patient with early breast cancer, and showed TC regimen was safe and effective for this kind of cancer patients, especially the breast cancer, which provided an alternative choice for the clinician.
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