Peer Review Report

Review Report on Comparison of uremic toxin removal between expanded hemodialysis and high volume online hemodiafiltrations in different modes

Original Research, Acta Biochim. Pol.

Reviewer: Karolina Pierzynowska

EVALUATION

Q 1   Please summarize the main findings of the study.

This is quite an important paper on comparison of uremic toxin removal between expanded hemodialysis and high volume online hemodiafiltrations in different modes. Depite no significant difference were demonstrated, it was important to compare various methods to judge on equality of them.

Q 2   Please highlight the limitations and strengths.

The strength of this study is comparing the efficacy of all forms of online HDF and HDx in a single analysis. The specific strengths include the crossover design to mitigate interpatient variability; standardization of basic dialysis parameters across various treatment methods; performance of HDF modalities at high volumes; and adjustment of the removal rate
for hemoconcentration during dialysis.
There are little limitations of this study. Although no differences were demonstrated among the efficiency of tested methods, this is still an important finding.

Q 3   Please comment on the methods, results and data interpretation. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

Methods, results and data interpretation are correct.

Check List

Q 4   Please provide your detailed review report to the editor and authors (including any comments on the Q4 Check List)

This is quite an important paper on comparison of uremic toxin removal between expanded hemodialysis and high volume online hemodiafiltrations in different modes. Depite no significant difference were demonstrated, it was important to compare various methods to judge on equality of them.
The strength of this study is comparing the efficacy of all forms of online HDF and HDx in a single analysis. The specific strengths include the crossover design to mitigate interpatient variability; standardization of basic dialysis parameters across various treatment methods; performance of HDF modalities at high volumes; and adjustment of the removal rate for hemoconcentration during dialysis.
My only critial comment is that the some data are presented in a too detailed manner. The precise number presented are just due to mathematical calculations, not the precise of the measurement. For example, when studying 12 patients, it does not make sense to indicate that 91.67% were men. The number 92% would be enough, as the precise up to 0.01% is misleading, suggesting that thousands of patients might be investigated. The same for any other values provided. The accuracy of the numbers should correspond to the sensitivity of the method used for measurement, not just a mathematical calculation.

Q 5   Is the English language of sufficient quality?

Yes.

Q 6　Is the quality of the figures and tables satisfactory?

Yes.

Q 7　Does the reference list cover the relevant literature adequately and in an unbiased manner?

Yes.

Q 8　Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)

Yes.

Q 9　Are the methods sufficiently documented to allow replication studies?

Yes.

Q 10　Are the data underlying the study available in either the article, supplement, or deposited in a repository? (Sequence/expression data, protein/molecule characterizations, annotations, and taxonomy data are required to be deposited in public repositories prior to publication)

No.

Q 11　Does the study adhere to ethical standards including ethics committee approval and consent procedure?

Yes.

Q 12　Have standard biosecurity and institutional safety procedures been adhered to?

Not Applicable.

QUALITY ASSESSMENT

Q 13　Originality

Q 14　Rigor

Q 15 Significance to the field

Q 16 Interest to general audience

Q 17 Quality of the writing

Q 18 Overall quality of the study