

The Effect of On-line Hemodiafiltration on Dry Weight Adjustment with Bioimpedance: Comparative Study between Conventional Hemodialysis and On-line Hemodiafiltration

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Objectives: Correct adjustment of dry weight after hemodialysis (HD) without any signs of hypervolemia is important. Intradialytic hypotension (IDH) is the most common complication during HD. The occurrence of IDH is 15-30% or even 50% of dialysis sessions. IDH essentially augments mortality due to chronic overhydration and inability to reach proper dry weight. On-line hemodiafiltration (oHDF) has been reported to reduce the frequency of IDH. The aim of this study is to assess the effect of oHDF on the hemodynamic stability and dry weight adjustment compared with low-flux HD.

Methods: IDH-prone HD patients at our center were enrolled. This study was designed as a cross-over trial with two phase (oHDF for 8weeks-> low-flux HD for 8weeks versus low-flux HD for 8weeks-> oHDF for 8weeks) and two treatment arms (oHDF versus low-flux HD), each phase lasting 8 weeks. We measured the proportion of water in the body with a body composition monitor (BCM).

Results: Twenty patients were enrolled, and nineteen patients completed the study. The demographic characteristics of the patients studied are listed in table 1. During HD session, the systolic and diastolic blood pressures decreased at one treatment model (A arm: low flux → HDF). The differences were statistically significant (Δ SBP: $p=0.0067$, Figure 1, Δ DBP: $p=0.0422$, Figure 2). But there were no significant differences in overhydration status during the two study phase, which was measured by BCM (A arm: $p=0.064$, B arm: $p=0.2107$).

Conclusion: Our study shows that oHDF does not reduce IDH and there was no significant benefit of reducing overhydration in oHDF session.

Key Words: 혈액투석여과, 건체중, 바이오임피던스
Online-HDF, Dry weight, Bioimpedance