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**CHANGES OF TOTAL BODY WATER IN HEMODIALYSIS PATIENTS: A  
COMPARISON BETWEEN BCM AND INBODY MEASUREMENTS**

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**Objectives:** The utilization of bioimpedance has increased in end-stage renal disease patients as a method of calculating dry weight, but debate continues regarding whether bioimpedance predicts dry weight. Therefore, this study measured total body water (TBW) before and after dialysis using two bioimpedance-measuring machines (BCM vs. Inbody) and aimed to determine whether the two machines accurately calculated ultrafiltration during dialysis.

**Methods:** Body composition before and after dialysis was measured using two bioimpedance spectroscopy systems (BCM, Fresenius Medical Care, Germany and S10, Inbody, Korea) in patients undergoing hemodialysis. Changes in TBW were calculated using both machines before and after dialysis, and the  $R^2$  coefficient, Bland-Altman plots, and the intraclass correlation coefficient (ICC) were used to evaluate the relationship of the estimated values with actual ultrafiltration.

**Results:** In total, 149 patients were enrolled (mean age: 62 years; male: 79 [53%]; diabetes: 80 [54%]). The  $R^2$  values for the correlation between the estimated TBW and the actual ultrafiltration values were 0.019 for BCM and 0.530 for Inbody. Inbody showed a more accurate and consistent relationship. Furthermore, BCM showed a wide standard deviation and inconsistent cases in the Bland-Altman plot, whereas Inbody determined the TBW change more accurately than that of BCM. The ICC was also superior for Inbody (BCM: 0.201, Inbody: 0.839).

**Conclusions:** Although neither machine predicted actual ultrafiltration, Inbody showed superior performance to BCM in terms of the  $R^2$  coefficient and ICC in terms of both TBW changes.

Correlation and consistency of BCM and inbody

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