Comparison of various techniques for extracellular fluid status assessment in hemodialysis patients

In the past multiple attempts have been made to develop an ideal method to assess the fluid status in hemodialysis (HD) patients. The aim of this study was to compare body bioimpedance spectroscopy (BIS) with ultrasound (US) lung comet score (ULCs), B-type natriuretic peptide (BNP) and inferior vena cava diameter (IVCD) by US for the estimation of extracellular fluid (ECF) status in HD patients. Methods: ECF was evaluated by BIS, ULCs, IVCD during inspiration (min) and expiration (max), the inferior vena cava collapsibility index (IVCCI) as well as serum BNP levels in 50 patients. The change in ECF after HD was also evaluated by all the methods. There was a significant correlation between the results of ECF measurement by BIS and ULCs (0.49), IVCD max (0.69), IVCD min (0.61), IVCC (-0.44). While BIS and BNP did not show correlation (0.03).

Conclusion: All methods were able to detect ECF to near ideal method like BIS except BNP.

Biography
Himansu Sekhar Mahapatra has completed his DM (Nephrology) from AIIMS, New Delhi and at present working as Head of the Department of Nephrology at PGIMER, Dr. R.M.I. Hospital, New Delhi, India. He trained many of the post-graduate students of Nephrology and published more than 22 papers in reputed journals and has been serving as an Editorial Board Member of repute. He is the DM (Nephrology) Post-graduate student in Nephrology at PGIMER, Dr. R M I. Hospital, New Delhi, India.

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