

AMERICAN HEART CONGRESS - CVD

October 05-06, 2018 | Los Angeles, USA

Utilization of bioimpedance spectroscopy in lieu of invasive monitoring for monitoring fluid overload

Andrew J Accardi and JT Heywood
Scripps Memorial Hospital, USA

Hear failure (HF) has become one of the leading cost concerns for Medicare and insurance companies, particularly due to the expense associated with hospitalizations and subsequent re-admissions. As a result, there has been a push to identify early markers of impending congestion as well as measures of treatment efficacy as means of providing cost savings and value in the management of HF by preventing admissions. The measurement of pulmonary artery diastolic (PAD) pressure from invasive devices has been shown to be useful in the management of the New York Heart Association (NYHA) class III HF patients. It has been suggested that bioimpedance spectroscopy (BIS) could be used as a non-invasive surrogate for volume overload. Therefore, we evaluated the correlation between BIS readings from a SOZO unit (ImpediMed, Qld, Australia) and the PAD obtained from a CardioMEMS device (Abbott Laboratories, Atlanta, Georgia) in an NYHA class III HF patient. The patient's PAD, weight, blood pressure, and bioimpedance were measured from August 7th through September 20th, 2017. The total body impedance measured from the SOZO unit correlated with PAD with a correlation coefficient of 0.876. The findings from this case suggest that BIS may provide an additional noninvasive tool to detect extracellular fluid excess and impending congestion before hospitalization. BIS correlates well with diastolic PA pressures and may prove a useful adjunct in the management of HF. Further research is needed in a larger more diverse group of patients to assess the role BIS plays in the management of HF.

Biography

Andrew Accardi is a critical care specialist in Encinitas, California and is affiliated with Scripps La Jolla Hospitals. He received his medical degree from New York Medical College and has been in practice between 11-20 years. He is one of 18 doctors at Scripps La Jolla Hospitals who specialize in Critical Care Medicine.

accardi.andrew@scrippshealth.org

Notes: