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Incessant research of target weight

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Introduction: The regulation of blood pressure is very difficult in hemodialysis patients. High blood pressure (hypertension) in hemodialysis was mainly due to a surplus of extracellular volume and increased peripheral resistance that result. Scribner described early in the non-drug treatment of this common complication by sodium diet and ultrafiltration. The correction of hypertension in hemodialysis is done by the dry weight method. The dry weight of the estimation error in chronic hemodialysis patients affects their morbidity and mortality. The aim of our study is to compare the results of estimating "Subjective" dry weight by the clinic with the results of impedance, ultrasound of the inferior vena cava and BNP testing in order identify risk factors for clinical estimation error of the dry weight.

Materials & Methods: This is a prospective study conducted in the hemodialysis center Nafisa Hamoud CHU Parnet of Algiers on 67 chronic hemodialysis patients. The estimate of the water status of patients was assessed by the three above-mentioned methods. We used the BCM (Body Composition Monitor) immediately before the dialysis session, excess post-dialysis fluid was calculated by a formula validated (excess of normal volume by BCM is -1,1 L to + 1.1 L). Serum BNP (B-type natriuretic peptide) was measured before and after dialysis and the calculation of the vein diameter lower cellar. We compared the target weight goal determined by these methods and the subjective target weight. The gap between the two was significant weight when it was greater than 1 kg.

Results: The median age of patients was 40±5 years, and a man sex ratio/woman of 0.84, average BMI of 21±3.5 kg/m2. Les values measured by the various techniques used, drop significantly after the session hemodialysis. We objectified a significant correlation between the results of the impedance, the BNP and the index of the maximum and minimum VCI. 41.5% of our patients have excess volume (hydration), while 49% were within the normal range or with normal hydrated and 8% were dehydrated. We corrected the dry weight of the patients according to the weight determined by the 3 methods, and after two months there has been a balancing of the hydration status of patients and their blood pressures.

Discussion: Determining the "Dry Weight" of patients with ESRD by clinical evidence is not sufficiently reproducible. Our results demonstrate that the clinical evaluation of the dry weight is correlated with dry weight of values estimated by BCM, BNP assay and the IVC diameter.

Conclusion: This study is among the few studies that used the three above-mentioned methods for assessing hydration status of chronic hemodialysis to show a good correlation between these three methods. The existence of a gap between the subjective and objective target weight suggests the incessant need for a coupling between the various techniques evaluated on a strategy adapted to the characteristics of each patient.

Biography

L Azouaou is a Teacher Assistant of Nephrology in College of Medicine of Algiers. She is a Graduate of the University of the Sorbonne in Paris in Nephropathology IUD, and Founder of the genetic study of SNCR in Algeria. She participated actively in several nephrology congresses in the world.

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