HEARTNEXUS using MYNICAS™ IN DIALYSIS

BENEFITS of HEMODYNAMIC MONITORING in DIALYSIS UNITS

MyNICaS is a non-invasive hemodialysis diagnostic device used by HeartNexus board certified Cardiologists to identify high risk (pre and post) dialysis patients allowing timely access to critically needed clinical decisions thus decreasing morbidity and mortality. HeartNexus Cardiologists are available to connect with patients via secure Telehealth technology 24/7.

The worldwide prevalence of chronic kidney disease ("CKD") ranges from 5-10%. This equates to approximately 740 million people. The majority of these individuals undergo renal replacement therapy, called hemodialysis ("HD") to replace the function of the failed kidneys. Even though HD is necessary for survival, there are many unwanted side effects that are related to fluid and electrolyte shifts within the various compartments of the body. These often lead to symptoms of fatigue, lethargy, nausea and vomiting. During dialysis, fluid is removed which leads to compromise in hemodynamics. Cardiac output and mean arterial pressure ("MAP") are both decreased which can lead to severe symptoms requiring cessation of dialysis. In some cases, the result may be sudden cardiac death ("SCD"). It is a well-known fact that during HD, there is a decrease in perfusion of cerebral, gastrointestinal, and myocardial tissue. Multiple mechanical and pharmacologic means have been tried to combat this decreased perfusion during dialysis. None are overwhelmingly successful. Our rationale is one that includes detecting patients that are susceptible to decreased perfusion and its complications via non-invasive HD monitoring through the MyNICAS device. Through this monitoring, we will be able to identify patients who are at risk for malperfusion during HD. Early identification through our parameters would allow adjustments in length of dialysis and dialysate concentration and as a result limit decreased tissue perfusion and its unwanted symptoms and morbidity and mortality.

Cardiovascular abnormalities frequently coexist with end stage renal disease (ESRD). From the cardiac standpoint, decreased myocardial perfusion is associated with decreased cardiac output and cardiac index. With decreased myocardial perfusion, there is frequently accompanied myocardial stunning and even reports of regional wall motion abnormalities ("RWMA"). This phenomenon essentially equates to an acute coronary syndrome which, as we know, could have devastating consequences. Non-invasive HD diagnostic devices such as MyNICAS, permit the identification of high-risk patients (both pre and post dialysis) and therefore allows practitioners to make clinical decisions that lead to decreased morbidity and mortality.

Dr. Robert Beto
Board Certified Cardiologist
HeartNexus
https://heartnexus.com/

Additional information may be obtained on the MyNICaS systems by contacting MyHealth Connection at support@myhealthconnection.tv or by calling them at 866-699-1169.