**BLOOD UREA NITROGEN: AN EMERGING BIOMARKER FOR NEUROHORMONAL ACTIVATION IN HEART FAILURE**

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The non-osmotic release of arginine-vasopressin, concurrent with activation of the sympathetic nervous system and renin-angiotensin-aldosterone system are thought to represent the maladaptive response that is central to the pathophysiology of heart failure (HF). The degree of neurohormonal activation correlates with the severity of the disease and can predict the outcome. However, quantification of components of neurohormonal axis (e.g. serum arginine vasopressin level) is mainly reserved for research purposes rather than routine practice. The results of several recent HF trials have shed light on the differential role of blood urea nitrogen (BUN) and creatinine in predicting the outcomes. These studies suggest that BUN could indeed represent a surrogate marker for “renal response” to neurohormonal activation in this setting, beyond and above its role in estimation of renal function. In this talk, the relevant physiologic mechanisms underlying urea and water transport in the kidney are first reviewed. Then the activation of neurohormonal axis and the impact of its components on renal urea transport, independent of changes in renal function, are explained. Finally, the unique role of BUN as a biomarker of neurohormonal activation in the setting of HF is discussed and the potential clinical implication of this novel concept is emphasized.