عنوان مقاله:

Understanding NT-proBNP as One of Useful Marker for Cerebral Perfusion and Venous Congestion in Intensive Care Unit

محل انتشار:

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خلاصه مقاله:

Background: N terminal pro B type Natriuretic Peptide (NT-proBNP) is an inactive pro-hormone that is used as a biomarker to evaluate our heart's condition. It is secreted due to stretching of venctricles. Increment of NT-proBNP levels usually signifies worse cardiac condition. NT-proBNP has been also used to assess the other indirect conditions that have an impact on cardiomyocytes such as sepsis and dehydration.Objective: NT-proBNP is one of the functional cardiac markers that could be used as one of the markers in critical condition patients to measure cerebral perfusion and venous congestion. The better and the sooner understanding about NT-proBNP could help intensivists for relating with sepsis condition, resuscitation, and volume overload and prevent the multi organ failure.Methods: ۳۰ unconscious intensive care unit (ICU) patients with various sources of infection and sepsis as a working diagnosis from q-SOFA criteria were selected. All of the patients were intubated with mechanical ventilation and oxygenation. The blood sample was taken from the jugular vein to measure NT-proBNP, haemoglobin, procalcitonin and frontal rSO_2 are measured by using Near-Infrared Spectroscopy. The collected data include central venous pressure and mean arterial pressure.Results: Significant correlation between NT-proBNP and other markers such as, haemoglobin (p=۰.۰۰۱), right rSO_2 (p=۰.۰۰۱), left rSO_2 (p=۰.۰۰۱), and mean arterial pressure (p=۰.۰۰۱). NT-proBNP result also has a correlation with procalcitonin (p=۰.۰۱۱) and central venous pressure (p=۰.۰۱۱).Conclusion: NT-proBNP has a correlation with the other markers, such as procalcitonin, as one of the sepsis markers, haemoglobin, mean arterial pressure, and central venous pressure as components of delivery oxygen, and rSO_2 as the recent brain oxygenation parameter that has been used. NT-proBNP definitely could be developed in the future as a useful marker in critical condition patients to support the primary organ sepsis patients in the intensive care unit.

کلمات کلیدی:

NT, proBNP Hb CVP rSO۲ Procalcitonin Cerebral perfusion Venous congestion

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