عنوان مقاله:

Novel Possible Biomarkers for the Cardiovascular Disease Prognosis

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خلاصه مقاله:

Background: Cardiovascular disease (CVD), especially heart failure (HF) as its common final pathway, is the leading cause of morbidity and mortality worldwide. Furthermore, oxidative and inflammatory processes represent fundamental underlying mechanisms for the development and progression of HF. Of interest, in recent years the development of markers with diagnostic and prognostic value for this pathology and other related CVD has been revalued. Objectives: This study was done to quantify and evaluate inflammatory markers, such as ultra-sensitive C-reactive protein (uCRP), interleukin-۶ (IL-۶), tumor necrosis factor-α (TNF-α), and heat shock protein ۷۰ (Hsp۷۰) in the serum of patients with HF and to compare them with healthy individuals, also correlate the values obtained from oxidative stress markers and nitric oxide (NO) bioavailability previously investigated in these patients with the coexistence or not of secondary pulmonary hypertension (SPH) associated with HF. Methods: The determination of all parameters was achieved with standardized, reproducible, accurate, and affordable biochemical methods. Results: The values obtained for uCRP, IL-۶, and TNF-α were following the pattern of oxidative markers previously found in these patients. These findings indicate the coexistence of oxidative stress and inflammation during HF. Of particular interest, such markers are more exacerbated when were associated with SPH, increasing its value as possible biomarkers in this pathology. However, the found levels of Hsp۷۰ were controversial. Conclusion: The pattern of oxidative-inflammatory markers suggests their value as possible biomarkers in this cardiovascular disease. Nevertheless, additional studies are needed to assess in greater detail the importance of the relationship between .serum Hsp۷۰ expression and SPH-associated or non-SPH morbidity in HF

کلمات کلیدی:

Heart failure, Pulmonary hypertension, C-reactive protein, Heat-shock protein ۷۰, Biomarkers