Inflammation and endothelial dysfunction in patients with chronic heart failure

Inflamación y disfunción endotelial en pacientes con insuficiencia cardiaca crónica

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Background: In chronic heart failure (CHF), endothelial dysfunction (ED) is a consequence of an imbalance of vascular tone regulating substances. The relationship between ED and inflammation has not been fully investigated. Aim: To assess the association between inflammation and ED in CHF. Material and methods: Forty two patients aged 56±14 years (80% male) with a CHF in functional capacity II-III (New York Heart Association) and an ejection fraction (EF) <40% were consecutively studied. Patients were classified according to the presence or absence of ED, evaluated by reactive vasodilation measured by ultrasound, after brachial artery compression.

Circulating levels of highly sensitive C reactive protein (usCRP), tumor necrosis factor ? (TNF?) and interleukin-6 (IL-6) were determined by ELISA. A group of 15 healthy subjects of similar age, were studied as controls. Results: Sixty seven percent of patients had ED. Compared to controls, patients with CHF had higher usCRP (0.58±0.4 and 4.