

IS THERE A CORRELATION BETWEEN STIFFNESS VASCULAR PARAMETERS AND AUTO-ANTIBODIES AGAINST NUCLEAR PROTEIN SCL-70 IN PATIENTS WITH SYSTEMIC SCLEROSIS?

ACC Poster Contributions

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Background: Systemic sclerosis (SSc) is a multisystem disorder characterized by thickening and fibrosis of skin, internal organs disease associated with vascular damage, premature aging of the arteries and activation of the immune system. The majority of SSc patients (pts) have auto-antibodies (ab) against nuclear antigens. Among these, ab against topoisomerase I (topo I) are frequently detected in the serum of SSc pts. These ab are immunoglobulins reacting with a 70 kDA nuclear protein (Scl-70): an increasing of these is correlated with a poor prognosis. Aim of our study was to correlate arterial stiffness parameters, evaluated by echo-tracking, a new software provided by Aloka (Japan), and increase of serum levels of Scl-70 ab in SSc pts.

Methods: 22 SSc pts (21 M, mean age: 63±14 yrs) were included in our study. Serological Scl-70 ab were studied in 19 pts. In each subject echo-tracking was performed with an α -10 Aloka echocardiographic machine, provided by e-tracking software, and a linear 8 Mhz probe. The right and left common carotid (CC) arteries were scanned at about 2 cm proximal to the bulb region. A time related pressure-diameter curve of the carotid artery was, then, obtained after calibration for blood pressure (BP). The following parameters were calculated: Stiffness index (β) and Pulse wave velocity (PWV).

Results: We found, by means of Pearson's correlation, a significant linear correlation between serum level of Scl-70 ab and both stiffness parameters, PWV ($p=0.016$, $r= 0.546$) and β ($p= 0.021$, $r= 0.524$).

Conclusions: The correlation between SCL70 ab and stiffness parameters confirm the importance of these ab in the involvement of vascular system in patients with SSc. An increasing of serum levels of Scl-70 ab may be considered an humoral marker of vascular damage in pts with SSc.