ADIPONECTIN CORRELATES WITH DEGREE OF LEFT ATRIAL BLOOD STASIS IN NON-VALVULAR ATRIAL FIBRILLATION

Poster Contributions
Hall C
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Background: Adiponectin modulates fatty acid oxidation and glucose regulation. Diabetes mellitus is a major risk factor for thromboembolism in NVAF. Blood stasis also increases this risk. We therefore tested the hypothesis that plasma adiponectin correlates with measures of blood stasis in NVAF.

Methods: Plasma adiponectin concentration was measured using an enzyme-linked immunoassay in 210 NVAF patients (age 63±13 years; 25% women) and 32 normal sinus rhythm controls (NSR; age 64±14 years; 39% women). Left atrial blood stasis defined by transesophageal echocardiography spontaneous echo contrast (SEC) were found to be absent (n=57), mild (n=55), moderate (n=50), severe (n= 28), or left atrial appendage thrombus (LAAT, n=20).

Results: Plasma adiponectin concentrations (mean ± STDEV, µg/mL) varied directly by the degree of SEC (Figure). Circulating adiponectin levels were significantly higher (p<0.05) amongst patients with severe SEC and LAAT compared to controls. Amongst AF patients, intensity of SEC was associated with higher circulating adiponectin level (No SEC vs Severe SEC, p<0.005).

Conclusions: There appears to be a direct correlation between adiponectin and the degree of left atrial blood stasis in patients with NVAF. Whereas diabetes mellitus is a major risk for stroke in NVAF, adiponectin may provide insight into the pathophysiology of thromboembolism in this disease.

Figure 1: Comparison of plasma adiponectin levels with varying intensity of SEC in NVAF and NSR subjects (***p<0.05).