Abstract: **P2183**

**Prothrombotic state as a causative of impaired left ventricular diastolic function in patients with primary antiphospholipid syndrome**

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BACKGROUND: Cardiovascular manifestations, encountered in antiphospholipid syndrome, may develop as consequence of thrombophilia mediated by antiphospholipid antibodies and accelerated atherosclerosis as well. Our study aims to assess the impairment of left ventricular diastolic performance, as an early evidence of myocardial involvement in primary antiphospholipid syndrome (PAPS).

METHODS: We analyzed 100 APS patients, average age 47.70±13.14. Anticardiolipin antibodies (aCL IgG/IgM), anti-ß2 glycoprotein-I (anti-ß2GPI IgG/IgM) and lupus anticoagulant (LA) were determined. Abnormal cutoff values (more than half) for left ventricular diastolic dysfunction (LVDD) were septal e' < 7 cm/sec, lateral e' < 10 cm/sec, average E/e' ratio > 14, LA volume index > 34 mL/m², and peak tricuspid regurgitation velocity > 2.8 m/sec. Results were compared to 45 healthy, age and sexmatched controls.

RESULTS: LVDD was significantly more prevalent in PAPS patients comparing to healthy controls (24.8% vs 2.2%, p=0.001). It was significantly related to age, body mass index, hyperlipidemia, venous thromboses and LA positivity in PAPS patients (p=0.0001, p=0.008, p=0.039, p=0.001, p=0.047 respectively). Patients with PAPS had higher LAVI (29.76±6.40 ml/m² vs 26.62±7.8 ml/m², p=0.012). Higher isovolumic relaxation time, lower lateral Ee velocity and lower lateral E/Ee ratio were seen in PAPS compared to controls (p=0.0001, p=0.020, p=0.038, respectively).

CONCLUSION: Echocardiography and LVDD recognition identifies preclinical cardiac involvement in PAPS patients, especially in those with venous thromboses and LA positivity. Given that LVDD is a main determinant of heart failure with preserved ejection fraction, timely recognition of prothrombotic state presence, seems to be mandatory.