

Abstract

Background: Endometriosis is a common gynecologic disease associated with systemic inflammation and atherogenic risk factors. Therefore, women with endometriosis may have increased cardiovascular risk.

Aims: We aimed to evaluate arterial stiffness using cardio-ankle vascular index (CAVI) in women with and without endometriosis.

Methods: We enrolled 44 patients with endometriosis and 76 age-matched controls without endometriosis. Endometriosis was diagnosed based on histopathologic examination or magnetic resonance imaging. Arterial stiffness was evaluated using CAVI in all study participants.

Results: No differences were observed between patients and controls in terms of age (median [interquartile range, IQR], 30 [24.25-5] years and 26 years [24-35] years, respectively), body mass index (median [IQR], 23.31 [20.82-24.98] kg/m² and 23.74 [21.13-26.78] kg/m², respectively), or waist circumference (median [IQR], 69 [64-75] cm and 72 [65-81.25] cm, respectively). C-reactive protein levels were higher in women with endometriosis than in controls (median [IQR], 0.27 [0.14-0.68] mg/dl vs 0.12 [0.06-0.24] mg/dl; P < 0.001). Left ventricular ejection fraction, left ventricular mass index (LVMI), relative wall thickness, as well as systolic and diastolic blood pressures were similar in both groups. Women with endometriosis had higher CAVI than controls (mean [SD], 5.961 [0.644] vs 5.554 [0.654]; P = 0.001). Elevated arterial stiffness was observed in the endometriosis group also after adjustment for age and LVMI.

Conclusions: Our results indicate increased arterial stiffness measured by CAVI in women with endometriosis. Therefore, clinicians should be aware that these patients may be at increased cardiovascular risk.