

B-01-24

Abstract citation ID: qdae041.027**(1009) CARDIAC STRUCTURE AND FUNCTION IN MEN WITH ERECTILE DYSFUNCTION**

*Dr. Emil Durukan^{1,3}, Christian F.S. Jensen, PhD/MD¹,
Dr. Maria Dons^{2,4}, Dr. Morten Sengeløv^{2,4},
Nino E. Landler, PhD/MD², Dr. Kristoffer G. Skaarup^{2,4},
Peter B. Østergren, PhD/MD^{1,3}, Prof. Jens Sønksen^{1,3},
Prof. Tor Biering-Sørensen^{2,4}, Prof. Mikkel Fode^{1,3}*

¹Copenhagen University Hospital, Herlev & Gentofte Hospital, Department of Urology, Herlev, Denmark

²Copenhagen University Hospital, Herlev & Gentofte Hospital, Department of Cardiology, Gentofte, Denmark

³University of Copenhagen, Department of Clinical Medicine, Copenhagen, Denmark

⁴University of Copenhagen, Department of Biomedical Sciences, Copenhagen, Denmark

Objectives: Men with erectile dysfunction (ED) are at elevated risk of heart disease. However, data on the prevalence of abnormal cardiac structure and function in ED is scarce. We utilized echocardiography to assess cardiac characteristics in men with ED.

Methods: In this prospective cohort study of men with ED referred to a tertiary urology clinic, all participants underwent transthoracic echocardiography following a predefined protocol and electrocardiogram. Erectile function was graded according to the International Index of Erectile Function - Erectile Function (IIEF-EF) questionnaire. Participants with neurological disease, a medical history of pelvic surgery or trauma were excluded. Left ventricular (LV) structure was evaluated by ventricular mass index (LVMI). LV diastolic function was evaluated according to early diastolic mitral annular velocity (e'), ratio of early transmitral filling velocity to (E/e') and left atrial volume index (LAVi). LV systolic function was evaluated by LV ejection fraction (LVEF), and global longitudinal strain (GLS).

Results: We included 100 patients with a median age of 61 yr (IQR 13) and median IIEF-EF was 15 (IQR 14). Comorbidities included hypertension (43%), dyslipidemia (41%), diabetes mellitus (29%), ischemic heart disease (12%), arrhythmia (12%), and heart failure (3%). Regarding cardiac structure, 25 patients had LV hypertrophy. Signs of LV diastolic dysfunction were a common observation; 21 patients had an E/e' ratio > 9 , while 30 patients had reduced septal and/or lateral e' velocities with only 1 patient having left atrial dilation (LAVi > 34 ml/m²). Regarding LV systolic dysfunction, 83 patients had reduced GLS ($< 16\%$) with 14 suffering reduced LVEF $< 52\%$. 4 patients were referred for further evaluation, due to previously undiagnosed left bundle branch block, mitral valve regurgitation, aortic valve regurgitation, and incident heart failure, respectively.

Conclusions: A majority of patients with ED demonstrated impairment of cardiac structure and function assessed by measures of diastolic dysfunction and myocardial deformation.

Conflicts of Interest: The authors declare no conflict of interest.