

6- Prevalence and Cardiovascular Outcomes of Diabetic Cardiomyopathy in an Egyptian Type II Diabetic Patient Population: A Cross-sectional Hospital-based Multicenter Study.

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Objective: A multicenter study to evaluate the prevalence and cardiovascular outcomes of diabetic cardiomyopathy in type II diabetic patients. **Patients and Methods:** Two hundred participants with type II diabetes mellitus (DM) were included, while participants with coronary artery disease (CAD), valvular heart disease, or history of alcohol or drug abuse were excluded. Participants were subjected to history taking for age, gender, body mass index, smoking, dyslipidemia, medications, DM, Framingham diagnostic criteria of heart failure (HF), comprehensive clinical examination, 12 leads resting electrocardiogram, transthoracic echocardiography and one of the following laboratory investigations: glycated hemoglobin, random blood sugar, fasting blood sugar, or 2-hour 75-gram oral glucose tolerance test. **Results:** The prevalence of diabetic cardiomyopathy versus (vs) no diabetic cardiomyopathy, left ventricular (LV) diastolic dysfunction grade II and III, systolic dysfunction, and hypertrophy in the study population was 23.0% vs 77.0%, 18.5%, 5.0%, and 8.0%, respectively. There was a highly significant difference between LV diastolic dysfunction grade II and III, systolic dysfunction, and hypertrophy in the diabetic cardiomyopathy group vs no diabetic cardiomyopathy group, with an absolute risk increase of 80%, 22%, and 35% in the diabetic cardiomyopathy group, respectively. There was a highly significant difference between the mean ejection fraction (EF) in the diabetic cardiomyopathy group vs the no diabetic cardiomyopathy group.

The mean EF for the diabetic cardiomyopathy group was 5.5% lower than the mean EF for the no diabetic cardiomyopathy group. The prevalence of HF and pre-clinical HF in the diabetic cardiomyopathy group was 65% and 35%, respectively. The mean age for HF was 4.1 years older than the mean age for pre-clinical HF in the diabetic cardiomyopathy group. Smoking was significantly and strongly associated with HF vs pre-clinical HF in the diabetic cardiomyopathy group. Conclusions: Diabetic cardiomyopathy was prevalent in an Egyptian type II diabetic patient population and could be considered a primary myocardial disease predisposing to HF in type II DM.