Erectile dysfunction scores are lower in type 2 diabetes mellitus but not correlate with carotis intima media ticknes or coronary arter disease

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Objectives

- Erectile dysfunction (ED) has been reported to occur more commonly in diabetes than general population with the prevalence rate varies widely from 35% to 75% in different cross-sectional studies depending upon the methodology

- The aim of this study was to evaluate prevalence of erectile dysfunction (ED) in patients with type 2 diabetes in relation to the cardiovascular risk factors.

Methods

- A total of 116 males including type 2 diabetic patients (n=68, mean age: 56.7 (5.8) years) and age-matched healthy controls (n=48, mean age: 57.0(6.6) years) were included in this cross-sectional single-centre study conducted between 2012 and 2013 at a tertiary care hospital located in Bursa, Turkey.

- Concomitant hypertension, hyperlipidemia and coronary artery disease (CAD) were recorded in each subject along with measurement of carotid artery intima-media thickness (CIMT) and evaluation of ED via International Index of Erectile Function (IIEF-5) Questionnaire

Results

- Patient and control groups were similar in terms of percentage patients with concomitant hyperlipidemia (51.5 and 39.6%), and CAD (33.8 and 22.9%)
- CIMT measurement (mm) and hypertension (42.6 and 25.0%), revealed significantly higher values for patients with type 2 diabetes mellitus than controls (p=0.020).

- ED was determined in 75.0% of diabetic patients and in 60.4% of controls with identification of severe ED in 29.4% of overall patient population and 39.2% of patients with ED, whereas only in 10.4% of controls.
- ED scores was significantly lower in patients than controls (14.3(7.3) vs. 18.2(6.3), p=0.004) with significantly higher percentage of patients than controls in the category of severe dysfunction (29.4 vs. 10.4%, p=0.014).
- No significant relation of hypertension, hyperlipidemia, CAD and CIMT to ED was noted.

	Total (n=116)	Type 2 diabetes (n=68)	Control (n=48)	p value
Basic characteristics		Mean(SD)		
Age (years)	56.8 (6.1)	56.7 (5.8)	57.0(6.6)	0.819
Duration of diabetes (years)	7.4(6.9)	7.4(6.9)	-	-
HbA1c (%)	8.6(2.0)	8.6(2.0)	-	-
Cardiological findings		n(%)		
CIMT (mm)　　　Mean(SD)	0.6(0.2)	0.7(0.2)	0.6(0.2)	**0.020**
Hypertension	41 (35.3)	29 (42.6)	12 (25)	0.050[1]
Hyperlipidemia	54 (46.6)	35 (51.5)	19 (39.6)	0.206[1]
Coronary artery disease	34 (29.3)	23 (33.8)	11 (22.9)	0.204[1]
Erectile dysfunction				
Total score　　　Mean(SD)	15.9(7.1)	14.3(7.3)	18.2(6.3)	**0.004**
		n(%)		
Severe (scores 5-7)	25 (21.6)	20 (29.4)	5 (10.4)	**0.014**
Moderate (scores 8-11)	13 (11.2)	10 (14.7)	3 (6.3)	0.1581
Mild to moderate (scores 12-16)	14 (12.1)	6 (8.8)	8 (16.7)	0.1983
Mild (scores 17-21)	28 (24.1)	15 (22.1)	13 (27.1)	0.5356
None (scores 22-25)	36 (31)	17 (25.0)	19 (39.6)	0.0941

Conclusions

ED skores are lower in type 2 diabetes mellitus but not correlate with carotis intima media ticknes or coronary arter disease. ED is not suitable for describing cardiovascular risk in type 2 diabetic patients

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