

Relationship of Silent Myocardial Ischemia to Erectile Dysfunction in Patients with Diabetes Mellitus

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Abstract : Objective: Diabetes mellitus (DM) is associated with macrovascular complications, including coronary artery disease (CAD), and microvascular complications that contribute to the pathogenesis of erectile dysfunction (ED). On the other hand, silent myocardial ischemia (SMI) is more common in diabetic patients and is a strong predictor of cardiac events and mortality in diabetic and non-diabetic patients. Recently, Multidetector computed tomographic coronary angiography (MDCT-CA) has become a reliable non-invasive imaging modality for screening diabetic patients for SMI. We aim to evaluate the presence of SMI using (MDCT-CA) in patients with type 2DM having ED. Methods: This study evaluated 20 patients (mean age 61.45 ± 10.7 years), with DM and ED without any history of angina or angina equivalent. ED was tested with the Sexual Health Inventory for Men score, erection hardness score (EHS), and maximal penile circumferential change by an erect meter. Results: Of twenty studied patients, coronary artery stenosis was detected in 13 (65%) patients in the form of one-vessel disease ($n = 6$, 30%), two-vessel disease ($n = 2$, 10%), and three-vessel disease ($n = 5$, 25%). Maximum coronary artery stenosis was positively correlated with age ($P < 0.016$), and negatively correlated with EHS ($P < 0.04$). Multivariate regression analysis using age and EHS showed that age was the only independent predictor of SMI ($P < 0.04$). Conclusion: MDCT-CA is a useful tool to identify SMI in patients with diabetes mellitus and ED. One should consider the possibility of SMI especially in elderly patients with DM who have ED.

Keywords : diabetes mellitus, erectile dysfunction, microvascular, silent ischemia

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