Alleviation of Post-Radical Prostatectomy Cavernosal Fibrosis: Future Directions and Potential Utility for PDE5 Inhibitors.

Ahmed I. El-Sakka, MD

Abstract:

Reversion of cavernosal fibrosis remains a controversial issue. The relative smooth muscle cells loss that happen with cavernosal nerve damage and their impact on deterioration of erectile function were demonstrated in several studies. Furthermore, chronic ischemia that occurs with aging and medical co-morbidities is associated with reduction of nitric oxide-cyclic guanosine monophosphate and ultimately cavernosal fibrosis. Despite the encouraging recent results of the role of phosphodiesterase type 5 inhibitors in prevention of post prostatectomy erectile dysfunction, debate regarding the exact mechanism of PDE5 inhibitors in prevention, amelioration and reversion of penile fibrosis still exists. Recently, several reports suggested that PDE5 inhibitors may improve endothelial function and decrease arterial stiffness, introducing this class of compounds as potential drugs for treatment of erectile dysfunction-associated penile fibrosis. In this editorial we intended to address the role of PDE5 inhibitors as a promising treatment to alleviate or reverse ED associated-cavernosal fibrosis.
Severity of Erectile Dysfunction Could Predict Left Ventricular Diastolic Dysfunction in Patients without Overt Cardiac Complaint

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Abstract:

Introduction. It has been repeatedly demonstrated that presence of erectile dysfunction (ED) may predate the occurrence of overt event of coronary artery disease. However, the association between severity of ED and left ventricular diastolic dysfunction (LVDD) was rarely reported.

Aim. The aim of this study was to assess the association between severity of ED and LVDD in patients without overt cardiac complaint.

Main Outcome Measures. The International Index of Erectile Function (IIEF) was used to assess erectile function. Diastolic Doppler parameters measurements and tissue Doppler imaging were used to assess left ventricular diastolic function.

Methods. A total of 230 male ED patients without overt cardiac complaint were enrolled in this study. Erectile function was assessed using the IIEF. Patients were also screened for socio demographic data and medical comorbidities that included age, smoking, diabetes, hypertension, and dyslipidemia. All patients were referred to cardiologist for cardiac assessment. Left ventricular diastolic function that included diastolic Doppler parameters measurements and tissue Doppler imaging were also assessed.

Results. Mean age _ standard deviation was 57.5 _ 5.6 (range of 42–81). There were significant associations between the following risk factors: age, obesity, smoking, hypertension, dyslipidemia, and increased severity of ED (P <0.05 for each). Of the patients, 77.4%, 74.8%, 80%, and 66.1% had abnormal transmitral E/A (E/A) ratio, deceleration time (DT), isovolumic relaxation time (IVRT), mitral E velocity/tissue Doppler imaging E velocity (E/Em) ratio, respectively. Only the means of IVRT and (E/Em) ratio had significant associations with increased severity of ED (P <0.001 for each). There were significant associations between increased severity of ED and the following categorical echo parameters: grades 1 and 2 of E/A ratio, DT, IVRT, and grades 1, 2, and 3 of (E/Em) ratio (P <0.05 for each).

Conclusions. The current study clearly demonstrated that LVDD is prevalent among patients with ED-associated medical comorbidities without overt cardiac complaint. There were significant associations between increased severity of ED and presence of LVDD in those patients.
Erectile Dysfunction, Depression and Ischemic Heart Disease: Does Existence Of One Component Of This Triad Necessitate Inquiring the Other Two?

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Abstract:

Introduction. Erectile dysfunction (ED) depression and ischemic heart disease (IHD) had long been classified as independent medical conditions managed by unrelated medical services. Recent studies have revealed the intimate associations among the three conditions. However, when a patient presents with one component of this triad, whether the physicians should also screen for the other two components is still an important question to be answered.

Aim. The purpose of this Continuing Medical Education article is to review contemporary knowledge regarding the reinforcing associations between the three conditions and to highlight the importance of screening for the other two components when a patient presents with one component of this triad, thus enabling best-practice management.

Methods. An English-language MEDLINE review was performed from 1990 to present-day for the association between ED, depression and IHD.

Main Outcome Measure. Current state of information regarding associations among the three conditions.

Results. Recent studies have established a new paradigm for the intimate associations among the three conditions. Furthermore, various risk factors and medical co-morbidities such as age, obesity, sedentary lifestyle, smoking, heart disease, hypertension, dyslipidemia, diabetes, and related medications have been demonstrated to be highly associated with psychological disorders, cardiovascular diseases, and sexual dysfunctions.

Conclusions. The integrative view and holistic approach with full consideration of the property of each condition is the appropriate way for the diagnosis and management of patients with these conditions.
Cardiovascular Diseases and Erectile Dysfunction: the Two Faces of the Coin of Androgen Deficiency

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Abstract:

Traditionally, clinical conditions synonymous with the ageing male included cardiovascular disease (CVD), type 2 diabetes mellitus (DM) and sexual dysfunction, and were widely regarded as independent clinical entities. Over the last decade, interrelationship of clinical conditions has been convincingly demonstrated. Declining testosterone levels in the elderly, once regarded as an academic endocrinological question, appear to be central to the listed pathologies. It is now clear that erectile dysfunction is an expression of endothelial dysfunction. Testosterone deficiency is associated with an increased incidence of CVD and DM. The latter is often the sequel of the metabolic syndrome. Visceral obesity, a pivotal characteristic of the metabolic syndrome, suppresses the hypothalamic–pituitary–testicular axis leading to diminished testosterone production. Conversely, substantial androgen deficiency leads to signs and symptoms of metabolic syndrome. It is erroneous not to include testosterone measurements in the progress of the CVD, DM and erectile dysfunction. These conditions correlate strongly with testosterone deficiency.