

## Editorial

# The association of ED (erectile dysfunction) with ED (endothelial dysfunction) in the *International Journal of Impotence Research: The Journal of Sexual Medicine*

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Over the last few years, there has been exponential growth of progress in and attention to sexual medicine as a health concern. Participating in this escalation in sexual medicine research and knowledge, the *International Journal of Impotence Research: The Journal of Sexual Medicine* has witnessed an increase in the number of manuscripts received, accepted and published concerning male and female sexual health issues. There are several measures of the quality, significance and value of a medical journal such as the *IJIRjism*. The most widely respected gauge is the journal impact factor, reflecting the number of times citations of *IJIRjism* publications have appeared in the medical literature over the last year. The publisher is proud to announce that the impact factor has risen from a value of 1.95 for the year 2001 to 2.54 for 2002, maintaining the *IJIRjism* as the publication in the field of sexual medicine with the highest impact factor. The editorial team thanks the many men and women who are editorial board members, reviewers, contributors, subscribers and readers for their support. We will continue to work hard to earn your ongoing cooperation and collaboration.

The following *IJIRjism* editorial is based on a series of manuscripts in this issue (15.4). There is a developing association between cardiovascular risk factor exposure and erectile dysfunction borne out of numerous population-based epidemiologic studies and multiple clinical cardiovascular investigations, several of which appear in this and previous issues of the *IJIRjism*. Diseases that adversely affect endothelial function adversely affect erectile function, that is, a new mantra in our sexual medicine field is: ED (erectile dysfunction) = ED (endothelial dysfunction). ED = ED enables a refocusing of the historic view that considers erectile dysfunction to be merely a life-style, recreational, psychosocial issue to a more contemporary view that the barometer of a man's endothelial health includes the integrity of his erectile response. Our medical colleagues will, for the first time, have crucial blood flow-based support that erectile dysfunction may represent significant systemic vascular disease.

Such colleagues will therefore increasingly query male patients about their erectile function during history taking, as they routinely query men about other crucial vascular (ie cardiac) functions. Since ED may pathophysiologically result from structural occlusions within the arterial bed or within the erectile tissues smooth muscle/connective tissue framework, erectile function may be more sensitive to vascular disease than other vascular organs. ED may be the early sign of systemic atherosclerosis and may precede the clinical diagnosis of cardiovascular disease in other vascular beds.

This issue contains four articles concerning the association of ED = ED. The sentinel article by Banks *et al* found in 138 men with ED that the level of the inflammatory marker CRP (C-reactive protein) significantly correlated with the severity of penile arterial disease (as assessed by penile ultrasound). More research is needed to understand fully the role of inflammatory markers such as CRP as predictors of penile arterial disease. CRP is an independent predictor for developing cardiovascular disease that has shown to affect vascular endothelium adversely. This study suggests a potential link relating atherosclerotic vascular disease to erectile dysfunction since CRP has been shown to induce and recruit molecular and other cellular components to adhere to the endothelial surface. Other articles in this issue on this topic of ED = ED include that by Seyam *et al*. They examined 850 men in the Egyptian province of Ismailia and concluded that ED was significantly associated with smoking, diabetes, heart disease and hypertension. Reza *et al* similarly found in 2674 men in 28 counties of Iran that ED was significantly associated with diabetes, hypertension, peripheral vascular disorders, hypercholesterolemia and coronary artery disease. Nicolosi *et al* found in 2412 men a prevalence of ED of 16.1%. ED was associated with cigarette smoking and inversely associated with physical activity.

Given the importance of the *IJIRjism* to sexual medicine and given the importance of the association of cardiovascular risk factors to the field of

erectile dysfunction, it is important to note several key articles concerning ED=ED previously published in the *IJRjism*. Greenstein *et al*<sup>1</sup> examined 40 patients with ischemic heart disease who underwent coronary angiography and completed a questionnaire addressing erectile function. He found that patients with one-vessel disease had more and firmer erections with fewer difficulties in achieving an erection than men with two- or three-vessel disease. Age, diabetes and hypertension also had a negative effect on the quality of the erection in all patients. McMahon and Touma<sup>2</sup> found in 207 patients with erectile dysfunction that a history of cigarette smoking and positive vascular risk factors were predictors of organic impotence. Metro and Broderick<sup>3</sup> examined retrospective data on 105 diabetic patients complaining of impotence. In patients with a history of cigarette smoking, hypertension and coronary artery disease, those with insulin-dependent diabetes mellitus and coronary artery disease had more severe cavernosal arterial insufficiency than patients with non-insulin-dependent diabetes mellitus and coronary artery disease. Braun *et al*<sup>4</sup> examined 4489 questionnaire responses. The prevalence of ED was 19.2%, with a high comorbidity of ED found with hypertension and diabetes. Kawanishi *et al*<sup>5</sup> found that men with ED and an abnormal penile Doppler ultrasound were at increased risk for ischemic heart disease.

The presence or severity of penile vascular disease was found to correlate with other cardiovas-

cular diseases. Burchardt *et al*<sup>6</sup> investigated 104 hypertensive male patients. Those hypertensive patients with ED had significantly higher prevalence of cardiovascular complications. ED in hypertensive patients can be considered as a marker for cardiovascular complications in this patient group. Abdel-Hamid *et al*<sup>7</sup> examined 54 renal transplant recipients and concluded impotent renal transplant recipients were significantly more likely than potent renal transplant recipients to have hypertension, diabetes and hypercholesterolemia. Kubin *et al*<sup>8</sup> performed a review of the current epidemiological literature on erectile dysfunction. Various chronic disorders are associated with elevated rates of ED including diabetes and cardiovascular diseases.

The purpose of issue-related editorials is to focus on a specific aspect of sexual function or dysfunction and remind readers of past peer-reviewed manuscripts on the topic in the *IJRjism*. I repeat that it is important to look at past sexual medicine contributions to gain perspective for the future. The *IJRjism* is your journal so please read it faithfully, contribute manuscripts often and cite it routinely. As you read each issue, if you have a comment or letter to the editor concerning a current or past contribution, or if you are interested in helping the *IJRjism* and becoming a manuscript reviewer, feel free to contact me at [IJRjism@bu.edu](mailto:IJRjism@bu.edu).

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## References

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