

the rate of non fatal MI in the preceding year. The authors concluded that the risk of MI is increased in older men and in younger men with pre-existing known heart disease who received testosterone prescriptions. Unfortunately, this study also has flaws in that it is impossible from the design to distinguish whether any observed difference was due to the underlying condition (T deficiency) or to its treatment (T prescription). Also the shorter the exposure time for a drug, the less likely it is responsible for an observed difference and though the authors had long term data (12 months) they did not report, raising a concern that the observed difference no longer persisted over time.

Contrary to these three studies, new retrospective studies reveal no CVS dangers of TRT, and in fact suggest a possible protective mechanism. One trial suggests a 7-fold decrease in risk of MI. These studies would support multiple previous publications that suggest that men with normal T levels actually have longer life expectancies than hypogonadal men and that both low and high T levels have negative physiologic impact on male health.

In summary, “expert views” from all walks of life (endocrinologists, epidemiologists, gerontologists, public health experts and urologists; lay press and regulatory agencies; pharmaceutical and film industry) is resulting in a cacophony of opinions creating much confusion and detriment to patients and physicians alike. A properly funded and implemented longitudinal study, similar to the Women’s Health Initiative, is required before we can address the true prostate and cardiovascular safety of TRT in the hypogonadal man. Until then, the application of this therapy should be personalized to the needs of the individual.

**Keywords:** Testosterone replacement therapy; safe; CVS disease

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## AB20. Non-surgical treatment of peyronie’s disease: a 2014 update

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**Abstract:** Peyronie’s disease is characterized by the formation of fibrous plaque in the tunica albuginea of the penis. The patient usually complains of penile deformities in the form of curvature, palpable plaques, hourglass deformity, shortening or indentation with or without pain. The patient might also suffer from erectile dysfunction. The disease is associated with significant mental morbidity as 48% of the patients are clinically depressed. In addition, several comorbidities were found to be associated with the disease, such as diabetes mellitus, hypertension, erectile dysfunction, low testosterone, obesity, and smoking. Furthermore, 20% of patients were found to have Dupuytren’s contracture.

This presentation summarizes the current literature pertaining to all pharmacotherapies (oral, intralesional, iontophoresis, and topical) and minimally invasive treatments available for PD (vacuum, traction device, shock wave therapy, and radiation treatment). Special emphasis will be on the recently FDA approved collagenase (Xiaflex). Clostridial collagenases’ ability to digest native, triple-helical types I, II, and III collagens into a mixture of small peptides is its primary distinguishing factor. This is accomplished by making multiple scissions in the triple helix. Digestion is completed by hydrolyzing those fragments into a mixture of small peptides. Conversely, vertebrate collagenases initiate collagenolysis by making a single scission across all three alpha chains after which attack on those alpha chains is very limited.

Two phase 3 studies: IMPRESS (Investigation for Maximal Peyronie’s Reduction Efficacy and Safety Studies) I (417 men) and II (415 men) confirm the efficacy and safety. Men treated with collagenase clostridium histolyticum (CCH) showed a mean 34% improvement in penile curvature, representing a  $-17.0 \pm 14.8$  degree change per subject, compared with a mean 18.2% improvement in placebo treated men, representing a  $-9.3 \pm 13.6$  degree change per subject ( $P < 0.0001$ ). The mean change in Peyronie disease symptom bother score was significantly

improved in treated men vs men on placebo ( $-2.8 \pm 3.8$  vs.  $-1.8 \pm 3.5$ ,  $P=0.0037$ ). Three serious adverse events (corporeal rupture) were surgically repaired. We currently employ CCH in our practice as a first line therapy for stable PD with dorsal or dorsal-lateral

**Keywords:** Non-surgical treatment; peyronie's disease; PD

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## AB21. Association between vascular evaluation and erection hardness score in the patients with ED

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**Abstract:** Main causes of erectile dysfunction (ED) are attributed to vascular endothelial dysfunction and impaired blood flow due to arteriosclerotic changes. It is well known that vascular endothelial dysfunction has related to life-style related disease, as well as hypertension, diabetes mellitus, dyslipidemia and others. And it is widely accepted that ED is the good predictor of cardiovascular event. There are clinically some methods to evaluate the atherosclerosis in men such as FMD, pulse wave velocity (PWV) and carotid ultrasonography. In our study, we clinically examined the association among the erection hardness score (EHS), PWV, and the presence of carotid arterial plaques. PWV

is a measure of arterial stiffness and a marker of vascular damages. Higher PWV means that the vessels are less elasticity. Because PWV is gradually increased by age, we evaluated the correct value which is PWV at the first examination minus reference PWV by age. Our study revealed that patients with lower score of EHS at the first visit had higher PWV and were more likely to have carotid arterial plaques, and therefore, a high possibility of organic ED. Patients with Organic ED were significantly higher than those with psychogenic ED in PWV.

And also our study indicates that the hardness of the penis can be an easier, clearer and more sensitive index of atherosclerosis.

**Keywords:** Erectile dysfunction (ED); erection hardness score (EHS); pulse wave velocity (PWV)

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## AB22. Role of varicocele repair for male infertility in the era of assisted reproductive technologies

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**Introduction:** Although infertile couples may include men with a varicocele, IVF/ICSI as primary treatment for male-factor infertility has greatly increased and can potentially decrease direct medical intervention for infertile men when they seek treatment from a urologist specializing in male infertility. Such series of treatment strategy might increase the risk of unnecessary interventions for the female partner, which could lead to potentially serious complications