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Words of Wisdom

Erectile Dysfunction and Subsequent Cardiovascular Disease

Thompson IM, Tangen CM, Goodman PJ, Probstfield JL, Moinpour CM, Coltman CA.

JAMA 2005;294:2996–3002.

Expert's summary:
Thompson et al. examined the association between erectile dysfunction (ED) and subsequent cardiovascular disease. Among 9457 subjects in the age groups 55 or older enrolling in the Prostate Cancer Prevention Trial (finasteride vs. placebo), 4247 had no sexual dysfunction at study entry and represent the study cohort of patients. They were followed up every 3 months for 5 years looking at the onset of ED and cardiovascular events. Fifty-seven per cent of subjects developed ED over the time. After adjusting for all covariates, men with incident ED had a significantly increased risk of acute myocardial infarction or angina as compared to those without incident ED (HR: 1.37; CI: 1.06–1.76, $p = 0.02$). ED had an equal or greater effect on subsequent CV events of the same magnitude as family history of premature coronary artery disease (CAD), smoking or hypercholesterolemia.

Expert's opinion:
Data are accumulating on the role of erectile dysfunction (ED) as a marker of sub-clinical vascular disease, including CAD [1]. This recently released paper adds substantial information on the concept of ED as ''sentinel'' of coronary circulation. While any additional data are welcome, this paper lacks crucial information.

First, if ED is a precursor of CAD or any other vascular syndromes [2], then we need to know how long is the time interval between ED and CAD and which clinical variables or non-invasive tests can identify patients at risk of early future coronary events. Previous retrospective studies showed a mean time interval of almost 3 years [3,4] while no significant data is yet available on high risk group identification. This last issue is tightly linked to which target should be searched for in ED patients: is *obstructive* or *non-obstructive* CAD the right target to look at? Each target would require proper tests.

Second, patients with incidental ED who developed CAD later during the follow-up do that either as acute (i.e. acute myocardial infarction [AMI]) or chronic (i.e. effort-induced angina pectoris) coronary syndrome. The difference between the two clinical presentations is that AMI is the first manifestation of CAD in 70% of patients. The lack of warning symptoms makes difficult the early identification of those at risk. On the contrary, effort-induced angina pectoris is by definition a chronic condition with slow progression. This allows patients to seek medical attention with subsequent further diagnostic and therapeutic interventions. Thus, it is crucial to know whether predictive variables may identify both sub-groups of patients.

Finally, this study presented patients who developed ED after CAD. This is an interesting although poorly investigated aspect of the ED-CAD relationship. We do not know whether the onset of ED may be a sign of CAD progression. Many patients having had AMI with single vessel disease do not have ED at first presentation, although they complained of sexual dysfunction over the time [4]. In these patients late onset of ED could be a marker of progression towards a multivessel coronary disease.

In conclusion, a strong coordination among the research groups in order to plan a prospective multi-center study looking at ED and cardiovascular system from different views would be required.

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Laparoscopic Partial Nephrectomy: 3-Year Follow-up

Moinzadeh A, Gill IS, Finelli A, Kaouk J, Desai M

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Expert's summary:

In this prospective study the authors reported the oncological data at a minimum 3-year follow-up regarding 68 patients with renal cell carcinoma (RCC) treated with laparoscopic partial nephrectomy (LPN). In 31% of the patients LPN was performed for imperative indications, while it was indicated electively in 69% of the cases. Surgery was performed according to the technique the authors described in 2003. The mean warm ischemia time was 27 minutes. Four intraoperative complications (5.8%) were repo-rted, as well as 5 (7.3%) immediate and 8 (11.7%) delayed postoperative complications. Two patients (2.9%) required hemodyalisis, while positive surgical margins were detected in a single patient. No patient developed local recurrence and the cancer-specific survival was 100%. The authors concluded that long-term oncological follow-up data were necessary for wider acceptance of LPN in the urological community.

Expert's opinion:

Open partial nephrectomy (OPN) allows highly favorable long-term oncological results, overlapping those reported in patients undergoing radical nephrectomy for renal cell carcinoma smaller than 4 cm [1]. Recent studies suggested the possibility to extend the indications for elective nephron-sparing surgery in patients with larger cancers [2].

Laparoscopic partial nephrectomy (LNP) is an emerging technique and it is the main alternative to OPN. The encouraging results available in literature come from a few studies performed exclusively in reference centres and are impaired by the short follow-up. Compared to OPN, LPN is followed by higher intra- and postoperative complication rates but it allows a significant reduction in the post-operative narcotic use, early hospital discharge, and quicker convalescence [3].

The oncological data provided by Moinzadeh et al. are really promising but, as underscored by the authors, need to be reconfirmed at longer follow-up before any comparison to larger, long-term follow-up, open surgical series [2,4]. In addition, Moinzadeh's data regard patients with pT1a RCC, with a mean pathological size lower than 3 cm. The efficacy of LPN in comparison with OPN, moreover, has to be shown in the patients with 3 to 7 cm cancers.

Laparoscopy is an appealing technique for both patients and urologists. Likely, the published series of LPN underestimates largely the number of procedures performed in the ''real life''. The favourable results of Moinzadeh et al. might increase further the number of performed LPN procedures as well as expand the indications for larger neoplasms, regardless of the scientific evidence. Wisdom obliges to remember that LPN present relevant technical difficulty, specially with regard to renal ischemia, parenchymal hemostasis, pelvico-caliceal reconstruction, and parenchymal renorraphy. Consequently, the European Scoring System for Laparoscopic Operations in Urology ranked LPN as an extremely difficult procedure, reserved to skillful laparoscopists [5].

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