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PRACTICE

10-MINUTE CONSULTATION

Sexual dysfunction in cardiovascular disease

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This is part of a series of occasional articles on common problems in primary care. The *BMJ* welcomes contributions from GPs.

A 53 year old man attends for a routine check-up. He underwent coronary artery bypass grafting after a myocardial infarction earlier in the year, and seems to be making good progress. He says he needs to discuss an embarrassing problem. He explains that he has been having erectile dysfunction, which is making him miserable and preventing normal marital relations.

What you should cover

- Clarify what the patient means by erectile dysfunction. A physical cause is more likely with gradual onset, constant erectile dysfunction with partial or poorly sustained erections, and no full early morning erections.
- Check duration of the problem—is it entirely new or worsening of a pre-existing problem?
- Review psychological factors such as performance anxiety, anxiety about precipitating another coronary event, low mood, stress, and relationship concerns.
- Ascertain patient's main concerns or worries.
- Exclude features of hypogonadism such as loss of libido, loss of body hair, hot flushes, low energy levels, gynaecomastia, and small testicular size.
- Review current medications, focusing on those that might cause erectile dysfunction (for example, β blockers, thiazides, spironolactone, fibrates, cimetidine, antidepressants, antipsychotics), or drugs that would contraindicate phosphodiesterase type 5 (PDE5) inhibitors (such as nitrates and nicorandil). Consider any temporal association with onset of erectile dysfunction symptoms.
- Review risk factors for sexual dysfunction, such as alcohol intake, smoking, recreational drug misuse, and weight gain. Review risk factors for or symptoms of other medical conditions (in addition to known cardiovascular disorders)

such as diabetes, prostatic disease, depressive illness, hypothyroidism, or neurological disorders.¹

What you should do

- Physical examination: check blood pressure; examine genitalia (for small testicular size which may indicate hypogonadism, fibrosis in the shaft of the penis, retractability of foreskin); digital rectal examination of the prostate is indicated in the presence of genitourinary or protracted secondary ejaculatory symptoms.²
- Stratify patient's cardiovascular risk (low, intermediate/indeterminate, or high risk)
- Arrange diagnostic tests—in particular, glucose, cholesterol (if not measured within previous 12 months), prolactin, thyroid stimulating hormone, and testosterone levels between 0800 and 1100. Concentrations of testosterone may be low owing to illness within the previous 3 months; if this is the case the test should be repeated after 6-8 weeks.² Testosterone testing is recommended because deficiency is reversible and can result in PDE5 inhibitors being less effective. Normal values vary, so follow local laboratory guidelines.³
- Check whether medications may be causing or exacerbating the problem. Consider alternatives that are less likely to contribute to erectile dysfunction, such as angiotensin converting enzyme inhibitors, calcium channel blockers (except verapamil), loop diuretics, and proton pump inhibitors. Some evidence indicates that angiotensin receptor blockers may improve sexual function, and could be the drug of choice for patients with erectile dysfunction who are newly diagnosed with hypertension.²
- Discuss other potential causes or aggravating factors. Attention to lifestyle factors and aggressive lipid control can substantially improve erectile dysfunction with or without pharmacotherapy. These factors should already be

being addressed in patients with known cardiovascular disease, but awareness of this added benefit may aid compliance.⁴

- Clarify the patient's needs, beliefs, concerns, and expectations.
- Ask whether the patient has discussed erectile dysfunction with their partner and what the partner's feelings were.
- Openly discuss the lack of high quality evidence to underpin treatment decisions and the risks and benefits of different approaches. Depending on the underlying reasons for any particular prescriptions, discuss changing to a different medication or a trial of stopping a medication.

Management options

Manage abnormal blood results, including low testosterone, as part of follow-up consultations.³

In patients stratified at low cardiovascular risk, consider a PDE5 inhibitor.

- Use of nitrates or nicorandil is an absolute contraindication to use of PDE5 inhibitors. Review any nitrate prescription—often patients have not used these drugs since first diagnosis. If they sporadically use glyceryl trinitrate, or carry one “just in case”, then it may be reasonable to prescribe PDE5 inhibitors—ensure that the patient knows to stop glyceryl trinitrate if chest pain develops after taking sildenafil or vardenafil (withhold glyceryl trinitrate for 24 hours) or tadalafil (48 hours), or the consequences can be fatal. Nitrates are usually prescribed for control of angina symptoms and, unlike calcium channel blockers and β blockers, they have no prognostic benefit, so replacement with other anti-anginals could be discussed.²
- PDE5 inhibitors are also contraindicated in patients with hypotension (avoid if systolic blood pressure below 90 mm Hg), recent stroke, unstable angina, and recent myocardial infarction (within 6 weeks).⁴

Arrange follow-up to assess therapeutic outcome in terms of erectile response, side effects, and patient's satisfaction with treatment.

Consider stopping a medication if erectile dysfunction is a known side effect and if a temporal relation exists, after full discussion of uncertainties, risks, and benefits.

Consider referral:

- To relationship counselling, sex therapy, or psychology if relevant. These services are not readily available in some areas, in which case empirical treatment may be appropriate.
- To urology or other local service (choice of service varies considerably) in patients at low cardiovascular risk and with contraindications to PDE5 inhibitors.
- To urology outpatient clinic for those with history of trauma to genital area, pelvis, or spine, or if examination shows an abnormality of penis or testicles.
- To cardiology if cardiovascular risk is intermediate/indeterminate or high, for further assessment.

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Useful reading

Clinical knowledge summary on erectile dysfunction www.cks.nhs.uk/erectile_dysfunction

British Heart Foundation factfile June 2005—drugs for erectile dysfunction www.bhf.org.uk/healthcare-professionals/resources/factfiles.aspx#PreviousIssues