Male sexual dysfunction

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Approximately 31% of men suffer from a sexual dysfunction in their lifetime. This review aims to provide the family practitioner with an approach to managing common cases of male sexual dysfunction, such as erectile dysfunction, using consensus guidelines.

The US National Health and Social Life Survey (NHSLS) estimates that approximately 31% of men suffer from a sexual dysfunction in their lifetime. The aim of this review is to provide family practitioners with an approach to managing the common types of male sexual dysfunction.

Method

This review reflects the consensus and guidelines of the International Society of Sexual Medicine (ISSM), the recommendations of the International Consultation of Sexual Medicine-5 (ICSM-5), the Journal of Sexual Medicine and the guidelines of the European Association of Urology (EAU), the American Urological Association (AUA), the International Society for the Study of the Aging Male (ISSAM) and the Endocrinology Society. Our guidelines and recommendations aim to be evidence based and patient centred.

Erectile dysfunction

Erectile dysfunction (ED) and premature ejaculation are the two most common complaints of male patients presenting with sexual dysfunction. ED is defined as a man’s consistent or recurrent inability to attain and/or maintain penile erection sufficient for satisfactory sexual activity. Symptoms include a marked difficulty in obtaining an erection during sexual activity and/or maintaining an erection until the completion of sexual activity, and a marked decrease in erectile rigidity.

Epidemiology

Globally, studies show a high prevalence and incidence of ED, correlating with general dissatisfaction, age and other sexual dysfunctions. In South Africa, an exploratory study at a primary healthcare clinic in KwaZulu-Natal demonstrated an overall prevalence of 64.9% (N=521) in a sample of men aged ≥18 years. ED increased with age, and showed a strong correlation with economic status and comorbid conditions.

Clinical evaluation

Up to 50% of men with ED also experience premature ejaculation (PE). Detailed history-taking that is sensitive to the patient’s personal, cultural and ethnic background, and having the partner attend and engage in the clinical interview, assist in clarifying symptoms and refining the diagnosis.

Assessment tools

The International Index of Erectile Function-15 (IIEF-15) provides a domain score (IIEF-EF) for erectile function that has proven to be a reliable pretreatment screening tool and post-treatment response tool. A recent study indicated that patients complaining of severe ED probably have other comorbid conditions. A more comprehensive medical assessment is recommended in these instances, regardless of the patient’s age.

Physical examination

The physical examination (i) assists in corroborating aspects of the medical history; (ii) reveals unsuspected physical findings; (iii) assists in identifying specific aetiologies or comorbidities; and (iv) creates an opportunity to inform the patient about aspects of his sexual anatomy or physiology while providing reassurance about body appearance and function. However, the physical examination can be a source of shame, embarrassment, or discomfort for many and every effort should be made to ensure the patient’s privacy, confidentiality and personal comfort.

Treatment

The primary goal is to enable the individual or couple to enjoy a satisfactory sexual experience. This involves (i) identifying and treating any curable causes of ED; (ii) initiating lifestyle change and risk factor modification; and (iii) providing education and counselling to patients and their partners. Medical treatments for ED include oral agents, local therapies and vacuum constriction devices. All patients with ED should be evaluated for testosterone levels before treatment begins.

Oral agents

Drugs that inhibit phosphodiesterase type 5 (PDE5) increase arterial blood flow, which leads to smooth muscle relaxation, vasodilation, and penile erection. Three potent selective PDE5 inhibitors have been approved and are available in South Africa – sildenafil (Viagra), tadalafil (Cialis), and vardenafil (Levitra). These medications are efficacious and safe, both in non-selected populations of men with ED and in specific subgroups. PDE5 inhibitors do not initiate erections, but require sexual stimulation to facilitate an erection. It is currently recommended that patients should receive 8 doses of a PDE5 inhibitor on demand, with sexual stimulation, before classifying the patient as a non-responder. Daily dosing with...
tadalafil 5 mg has been approved for use in patients with ED, and recently in those with ED and lower urinary tract symptoms, by the European Medicines Agency and the US Food and Drug Administration. PDE5 inhibitors are contraindicated in men using nitrates.\cite{10-18}

Local therapies
Both intracavernosal injections and intraurethral alprostadil are effective and well tolerated and used as second-line therapies.\cite{19} Intracavernosal injections should not be used in men with conditions such as sickle cell disease, multiple myeloma and leukaemia, which predispose them to priapism.

Vacuum constriction devices are considered as first-line therapy by the British Society for Sexual Medicine. However, side-effects include painful ejaculation, inability to ejaculate, petechiae, bruising and numbness.\cite{19} Penile prostheses can be fitted in patients in whom medical therapy has failed or is contraindicated, or in whom other therapies have failed to satisfy the highly motivated patient.

Psychotherapy
Psychotherapy focuses on (i) reducing or eliminating performance anxiety; (ii) understanding the context in which men or a couple make love; (iii) implementing psychoeducation; and (iv) modifying sexual scripts, and identifying and reducing resistance to premature discontinuation of pharmacotherapy.\cite{19} While a variety of psychological interventions are available, efficacy and effectiveness studies are lacking.

Erectile dysfunction and coronary artery disease
ED and coronary artery disease share the same risk factors.\cite{20} While sexual activity for couples in a stable relationship does not increase cardiac events and sex is not an undue stress to the heart, men with ED should have their coronary artery disease risks assessed and treated. Sexual activity safety can be assessed using non-invasive stress testing, while exercise stress testing and computed coronary angiography can be used to detect occult coronary artery disease. The association between depression, ischaemic heart disease, and cardiovascular mortality has been well documented.\cite{21} Depression is also associated with sexual dysfunction and most frequently with ED. Therefore, irrespective of whether ED is a symptom or a cause of depression, a cardiac patient who is depressed is more likely to have ED (Fig. 1).

Premature ejaculation
The prevalence of PE is estimated at 24.9%.\cite{22} Lifelong PE is defined as ejaculation that ‘always or nearly always occurs prior to or within about one minute of vaginal penetration’, and/or ‘the inability to delay ejaculation on all or nearly all vaginal penetrations’, coupled with ‘negative personal consequences such as distress, bother, frustration and/or the avoidance of sexual intimacy’.\cite{22} PE may be the result of urological dysfunction, thyroid dysfunction or psychological and/or relationship problems. While most men with lifelong PE do not suffer from concomitant ED, PE coexists in about one-third of patients complaining of ED.\cite{22} All patients with PE must be carefully screened for ED. In some instances, PE and ED reduce a man’s level of sexual dissatisfaction, distress, frequency of sexual activity. Included in this evaluation should be the partner’s assessment of the patient’s level of sexual dissatisfaction, distress, and frequency of sexual activity. Included in this evaluation should be the patient’s complaint and whether the partner suffers from sexual dysfunction. It is important to note that ejaculation is not equal to orgasm.

Treatment
All symptomatic therapies for PE aim to reduce excitation. Therefore, these treatments must be prescribed to patients who are able to obtain and maintain an erection until their (premature) ejaculation.

Oral agents
The efficacy and safety of off-label daily dosing with selective serotonin re-uptake inhibitors (SSRIs) (paroxetine, sertraline, citalopram and fluoxetine),\cite{23} the serotoninergic tricyclic clomipramine, and off-label on-demand dosing with clomipramine for the treatment of PE are well established.\cite{23} A meta-analysis of published data suggests that paroxetine exerts the strongest ejaculation delay.\cite{24}

Recently, dapoxetine (a short-acting SSRI) has been officially approved in Europe and some other countries for on-demand treatment of PE.\cite{24} The efficacy and safety of off-label on-demand topical anaesthetic agents have also been demonstrated.\cite{25} However, there is currently no evidence to suggest that selective dorsal nerve neurectomy or hyaluronic acid gel glans penis augmentations are effective treatments for PE.\cite{24} Surgery, which may be associated with permanent loss of sexual function, is contraindicated.

Psychotherapy
Besides teaching self-control techniques to delay ejaculation, psychosocial therapies attempt to help the patient to recover his self-confidence and confidence in his sexual performance, reduce performance anxiety, solve rational problems, increase communication between partners, and resolve interpersonal issues that precipitate and maintain the dysfunction.\cite{26} However, efficacy and effectiveness studies are lacking.

Orgasmic dysfunction
Orgasmic dysfunction (OD) is the inability to achieve an orgasm or the markedly diminished intensity of an orgasm.\cite{27,28} It can also be the marked delay of orgasm during any kind of sexual stimulation. Delayed ejaculation, retarded ejaculation, and inhibited ejaculation are probably the least common, least studied, and least understood male sexual dysfunctions.\cite{27-29}

Clinical evaluation
Treatment should be aetiology specific and should address infertility in men of a
reproductive age. Assessment begins by reviewing the conditions under which a man is able to ejaculate (e.g. during sleep, masturbation, stimulation by partner). If orgasmic attainment had been possible previously, the life events and circumstances temporarily related to orgasmic cessation are reviewed. Treatment should focus initially on targeting and treating sexual dysfunction. Regardless of whether a clear pathophysiological cause is present, patients may be counselled to consider lifestyle changes including enjoying more time together to achieve greater intimacy, minimising alcohol consumption, making love when not tired and practising techniques that maximise penile stimulation, such as pelvic floor training. Patient education regarding existing factors that can exacerbate OD is an important first step and may represent a segue into counselling. Treatment with pharmaceuticals has had limited success. No drugs have been approved by regulatory agencies for this purpose.

Take-home messages

• ED shares risk factors with cardiovascular disease.
• The recognition of ED as a warning sign of silent vascular disease has led to the concept that a man with ED and no cardiac symptoms is a cardiac (orvascular) patient until proven otherwise.
• Clinical use of validated questionnaires addressing ED may be helpful.
• Lifestyle changes and risk factor modification should precede or accompany ED treatment.
• PDE5 inhibitors are contraindicated in patients using nitrates.
• PE is more common than ED.
• Patients must be advised that SSR1 treatment for PE is off-label.

References