



## Viagra and broken hearts

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**S**ildenafil (Viagra) is a family practice medication. It has brought active management of men's sexual problems to primary care. Erectile dysfunction is common and increases with age, ranging from 9% in the 20s to 18% in the 50s.<sup>1</sup> A community-based study found 52% of men aged 40 to 70 reported some degree of erectile dysfunction.<sup>2</sup> One in 10 men reported "complete impotence." This figure rose from 5% at 40 years to 15% by age 70.

Erectile dysfunction is prevalent in common primary care medical conditions, such as diabetes (60%), vascular disease (50%), postmyocardial infarction (40%), hypertension (20%), stroke (35%), depression (35%), alcoholism (35%), and treated prostate cancer (30% to 70%). It can also be an early signal of these conditions. As many as two thirds of elderly men having myocardial infarctions have erectile dysfunction before their heart attacks. Loss of ability to have an erection is often upsetting for men and their partners, leading to decreased quality of life and health, loss of self-esteem, and increased conflict in relationships.

### First important oral treatment

Sildenafil is the first important oral treatment for erectile dysfunction. It is a cyclic guanylic acid phosphodiesterases (type-5) inhibitor whose action blocks the breakdown of nitric oxide, a neural messenger that relaxes cavernosal arteries, allowing for increased inflow of blood. It produces a natural erection only in response to sexual stimulation, leading to successful vaginal intercourse for 69% of impotent men.<sup>3</sup>

Concern among patients, their partners, and physicians started soon after the release of sildenafil because of deaths associated with its use. The overall mortality from using sildenafil was not greater than that expected for men in middle and later life. Couples can be reassured that sildenafil does not *cause* heart disease. Most deaths have been associated with concurrent use of nitrates, whose degradation is blocked by sildenafil. Sildenafil is a mild antihypertensive, dropping systolic blood pressure by 8 mm Hg in healthy volunteers.<sup>4</sup> This effect increased fourfold, leading to symptomatic hypotension, when healthy volunteers were given sublingual nitrates in addition to sildenafil.<sup>5</sup> There was no drop when calcium channel blockers were used with sildenafil.

The Heart and Stroke Foundation, in conjunction with the Canadian Cardiovascular Society, convened a multidisciplinary panel to recommend guidelines to help manage erectile dysfunction in men with heart disease (page 393). This guideline groups men into three levels of risk.

1. Men with known coronary artery disease or angina who might need nitrates and men with serious hypotension should *never* take sildenafil.
2. For an intermediate group of men with severe, nonvascular heart disease and structural anomalies offered the option of sildenafil versus other treatments, care must be individualized.
3. Finally, most patients can take sildenafil with little, if any risk. This includes patients with hypertension and mild congestive heart failure.

Many partners do not want to push for treatment of impotence if it will endanger a man's health. The Heart and Stroke protocol allows for reassurance of couples in most instances. For those in whom sildenafil is contraindicated, other treatment options can be explored. Among patients with New York Heart Classification stage III and IV disease, 81% reported functional sexual difficulties and 73% noted decreased sexual desire.<sup>6</sup> Yet patients awaiting heart transplants (where some might feel sexual concerns to be frivolous) felt decreased sexual function was one of their five most distressing symptoms.<sup>7</sup> Medical options, when sildenafil is contraindicated, include intraurethral (MUSE) and intracavernosal (Caverject) prostaglandin. Vacuum tumescence devices are helpful for those who want nonpharmacologic treatments. Penile implants have been largely superseded by these newer therapies.

Cardiac and other chronic illnesses often lead to a loss of physical intimacy for couples paradoxically when emotional support is most needed. Overall well-being for both partners can improve greatly when restored sexual function reduces anxiety and tension.

### Involving both partners

Sexual dysfunctions affect both members of a couple and are more successfully treated if both

partners are involved in treatment. Most couples will benefit from focused education about the cause of erectile dysfunction, as many myths abound.<sup>8</sup>

About half of the "normal" partners will also have a concurrent sexual dysfunction that will affect treatment. Many female partners of impotent men will be in menopause. If couples have not had sexual intercourse for a long time, women are likely to have atrophic changes in their vaginas. Assessment of a woman's vaginal mucosa and potential treatment with local estrogen might be needed even *before* prescribing the man sildenafil.

Some partners will not want their partner's potency restored. In this situation, a potency pill is not a panacea. Helping a couple understand each other's differing points of view is an important first step in deciding on a management plan.

Family physicians are uniquely positioned to help with sexual problems.<sup>9</sup> Often they know both members of the couple well and have their trust. When a man is reluctant to mention sexual concerns to his physician, his partner might do so. Acknowledging sexual difficulties as valid medical concerns allows for finding common ground and developing an approach to management. Developing time-effective screening questions, such as "Many people have sexual difficulties. I wonder what concerns you might have?" can give patients permission to discuss their sexual problems. Despite our patients' newfound assertiveness in bringing up sexual issues in the age of Viagra, most patients are still afraid to voice them. Too frequently physicians collude with their patients to avoid opening Pandora's box. Although 70% of male patients felt it appropriate to discuss sexual problems with their doctors (and 35% had sexual concerns), only 2% of the physicians' charts had noted such discussion.<sup>10</sup>

### Treating other sexual disorders

The most prevalent concern for men in the general population is rapid ejaculation, with one third concerned about lack of orgasm control across the age spectrum. Decreased desire and loss of sexual pleasure follow this. Sildenafil will not help desire or orgasm phase disorders. But in giving permission to talk about sex, sildenafil can open the door for treating these disorders. Rapid ejaculation can be treated with behavioural methods<sup>8</sup> and through using selective serotonin reuptake inhibitor antidepressants, such as sertraline<sup>11</sup> and paroxetine.<sup>12</sup> Decreased desire is due to many causes, both physical and psychological.

Identifying hormonal abnormalities, such as hypothyroidism, hyperprolactinemia, and hypogonadism, can lead to appropriate diagnosis, treatment, and replacement therapy.<sup>13</sup>

Sildenafil has been the greatest advance in the medical treatment of sexual concerns since the advent of the birth control pill and hormone replacement therapy. While most men can be helped to achieve sexual intercourse with sildenafil, the long-term effects on men's sexual health and relationships remain to be studied.<sup>14</sup>

As many as two thirds of men do not have an identifiable organic cause for their erectile dysfunction after thorough assessment. Individual psychological and couple factors remain important causes of erectile and other sexual concerns. Combining medical treatments with individual, couple, or sex therapy is often more helpful in addressing causative issues than taking sildenafil alone.

Though sildenafil as sole treatment has been successful for many impotent men, it can best be used as part of an integrated, comprehensive management plan, including the partner whenever possible. Sildenafil is a safe drug as long as the hypotensive effects and interaction with nitrates are borne in mind. Sildenafil can help mend the "broken hearts" of both members of a couple dealing with erectile dysfunction. ♦

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