Daily phosphodiesterase type 5 inhibitor therapy: a new treatment option for prostatitis/prostatodynia?

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The management of patients with chronic pelvic pain attributed to chronic prostatitis has always been rather unsatisfactory. Even prolonged treatment with an aminopenicillin, such as ciprofloxacin, and an anti-inflammatory agent, or, alternatively an alpha-blocker, seldom results in rapid resolution of the symptoms, and is commonly completely ineffective.

There is in fact a very reasonable rationale for the use of a long-acting phosphodiesterase type 5 (PDE5) inhibitor in the treatment of men with symptoms of abacterial prostatitis/prostatodynia. The underlying cause of these symptoms has long been a source of speculation. In the absence of an identifiable infective agent, the current widespread use of antibiotics as a treatment option defies logic. Over 30 years ago, Kirby et al.1 suggested that intraprostatic reflux of urine might be an important initiating factor. In 2007, Grimsley et al.2 suggested that PDE5 inhibitors might relax the smooth muscle in the prostatic ducts and thereby have a role in the management of prostatitis, but provided no evidence for the hypothesis.

We recently encountered a patient, effectively disabled by prostatodynia, unresponsive to standard treatment, who had been taking morphine to control the pain from 2001 to 2008. He was unable to tolerate non-steroidal anti-inflammatory drugs. In 2008, he was prescribed initially 10mg, then 20mg daily, of the PDE5 inhibitor tadalafil, with immediate marked improvement of his symptoms. On cessation of the medication on four separate occasions, his symptoms returned; recommencement of treatment each time, with 5mg tadalafil daily, has resulted in similar persisting improvement of his symptoms, and he has been able to discontinue treatment with morphine. As a direct consequence of the conversation with this individual, we have prescribed tadalafil 5mg daily in several of our patients with prostatitis; so far with uniformly beneficial results.

The longer-acting PDE5 inhibitor tadalafil has been proven in randomised controlled trials to be effective in the treatment of erectile dysfunction.3 In addition, it has been shown to have a beneficial impact on lower urinary tract symptoms (LUTS) in men with benign prostatic hyperplasia, who also often suffer from concomitant difficulties with erections.4 Recently a meta-analysis of 17 trials has confirmed that tadalafil also significantly improves ejaculatory function.5

In addition to the symptom of pelvic pain, men with chronic abacterial prostatitis/prostatodynia also frequently complain of associated LUTS and ejaculatory discomfort. Consequently treatment with tadalafil at a dose of 5mg/day for a period of time would seem logical. It could be surmised that many of its beneficial effects might stem from an improvement of blood flow to pelvic organs as a consequence of its anti-inflammatory and vasodilatory activity, as well as a relaxant effect on smooth muscle, as has been previously suggested in the case of LUTS by Andersson and others.6,7

Clearly the hypothesis that daily treatment with a PDE5 inhibitor might be beneficial in men with the prevalent condition of chronic abacterial prostatitis/prostatodynia will need to be formally tested in the context of a randomised controlled trial. If the results of such a study were to prove positive, the quality of life of very many sufferers of this disorder might be significantly improved. One might also speculate that it could provide a concomitant benefit to the partners of these often very unhappy men.

Declaration of interests

RSK has spoken at symposia sponsored by Lilly.

REFERENCES

2. Grimsley SJ, Khan MH, Jones GE. Mechanism of phosphodiesterase 5

This article was originally published in BJU Int 2014;113:694–5.


