Premature ejaculation: A review

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Abstract
Premature ejaculation (PE) is a common male sexual disorder. It is defined by the Diagnostic and statistical manual of mental disorders as “ejaculation occurring, without control, on or shortly after penetration and before the person wishes it, causing marked distress or interpersonal difficulty.”[1] Although the timing of intravaginal ejaculatory latency time (IELT) (i.e., time from penetration to ejaculation) is not included in this definition, an IELT of <2 min, or ejaculation occurring before penetration, has been considered consistent with PE.[2] Management involves both the patient and his partner. Therapeutic options should suit both partners and be appropriate to their habit in planning and frequency of intercourse. Follow-up at appropriate intervals to judge efficacy, titrate dosage of pharmacological treatments and ascertain side effects is mandatory.

Key words: Dapoxetine, herbal treatment options, premature ejaculation

INTRODUCTION

Premature ejaculation (PE) is a common male sexual disorder. It is defined by the Diagnostic and statistical manual of mental disorders as “ejaculation occurring, without control, on or shortly after penetration and before the person wishes it, causing marked distress or interpersonal difficulty.”[1] Although timing of intravaginal ejaculatory latency time (IELT) (i.e., time from penetration to ejaculation) is not included in this definition, an IELT of <2 minutes, or ejaculation occurring before penetration, has been considered consistent with PE.[2]

In recent times, the International Society for Sexual Medicine has redefined PE, to include IELT, as: “ejaculation that always or nearly always occurs before or within about one minute of vaginal penetration; and inability to delay ejaculation on all or nearly all vaginal penetrations; and negative personal consequences, such as distress, bother, frustration and/or the avoidance of sexual intimacy.”[3]

The American Urological Association (AUA) defines it as ejaculation that “occurs sooner than desired, either before or shortly after penetration, causing distress to either one or both partners.”

WHO describes PE as “the inability to delay ejaculation sufficiently to enjoy love making, which is manifested by either an occurrence of ejaculation before or very soon after the beginning of intercourse or ejaculation occurs in the absence of sufficient erection to make intercourse impossible.”

PE has been subclassified into two forms: A primary (lifelong) form that begins when a male first becomes sexually active and a secondary (acquired) form.[4,5] Two further classifications are proposed but not widely accepted: Normal variable PE, in which early ejaculation occurs inconsistently and is situational; and premature-like ejaculation, in which there is a subjective perception of PE although the IELT is normal (i.e., >2 min).[6]
Reference to the frustration caused by PE can be traced back to the Kama Sutra, written between the 1st and 4th centuries.[7] It consistently affects about one in three men, although two in three men may be affected at some time in their lives.[8] It is suspected that primary PE has a genetic basis.

**EVALUATION OF THE PATIENT WITH PREMATURE EJACULATION**

PE is a self-reported diagnosis. A complete assessment of sexual function should be evaluated in order to differentiate ED from PE, which has been reported to co-occur in approximately 30% of patients.[9] The opinion of a partner can provide a significant contribution to clinician understanding. A complete description is essential in distinguishing PE from ED, i.e., the inability to attain or maintain an erection, because these conditions frequently coexist. Moreover, some men are unaware that loss of erection after ejaculation is normal; thus, they may erroneously complain of ED when the actual problem is PE. Of late, the PE Tool, a valid and reliable measure of PE, was developed to capture patient concerns beyond a short latency time.[10]

**MANAGEMENT PLAN**

Management involves both the patient and his partner. Therapeutic options should suit both partners and be appropriate to their habit in planning and frequency of intercourse. Follow-up at appropriate intervals to judge efficacy, titrate dosage of pharmacological treatments and ascertain side effects is mandatory [Figure 1].

**Psychological counseling**

It is more common for psychological problems to be secondary to PE rather than the cause. Counseling may be useful in conjunction with other treatments if it is considered to be helpful in improving self-esteem, but is not effective in treating the cause of lifelong PE.

**Behavioral techniques**

Active treatment of PE probably started over 50 years ago with Semans’ “stop-start” technique for prolonging the neuromuscular reflex responsible for ejaculation.[11] The man informs his partner to stop genital stimulation until the subjective sensation of high arousal disappears. Stimulation is reintroduced and the cycle is repeated if necessary. One weakness in Semans’ study was the lack of a control group. Further behavioral studies by Wolpe and Lazarus[12] and Masters and Johnson’s “squeeze technique”[13] were not able to demonstrate that these behavioral techniques definitely “cured” PE. Such techniques are considered by many to be unhelpful in resolving relationship issues. Generally they are intrusive, mechanical and may fracture a normal love/lust act, relationship and spontaneity.

**Drug therapy treatment options**

Although several drugs have been evaluated in clinical trials to improve ejaculatory control and reduce personal distress, none of these agents are currently approved by Food and Drug Administration for the treatment of PE. However, behavior modification strategies and pharmacologic agents such as the selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), and topical preparations (e.g., lidocaine/prilocaine cream) are all currently recommended by the AUA for the management of PE.[14] Topical anesthetics effectively desensitize the penis to tactile stimuli, improve latency time, and are associated with only minor local side-effects. The SSRIs and TCAs have traditionally been used as antidepressants and some are associated with intolerable side-effects and potentially significant drug interactions, therefore, the chronic use of these drugs for the treatment of PE can be unappealing and may result in poor adherence by patients. To address these concerns, several clinical trials have utilized lower doses and on-demand versus continuous daily dosing of these agents, but an advantage associated with this dosing strategy has not been clearly established.[14,15]

**Measures that reduce penile sensation/topical treatments**

Condoms reduce glans penis sensitivity and have been used in the treatment of PE. Topical preparations have also been used to reduce glans penis sensitivity. These include:

- **Lignocaine-prilocaine**
  Lignocaine-prilocaine aerosol applied 20-30 min before sexual intercourse and removed before contact with the partner. Trials of this treatment in the
Underlying these Indian Journal of Sexually Transmitted Diseases and AIDS 2014; Vol. 35, No. 2 daily dosing rather than on‑demand administration. fluoxetine’s long half‑life lends itself to continuous patient satisfaction, compared with placebo, although have also been shown to increase IELT and improve 7.7 min after treatment delaying ejaculation from 1.5 min before treatment to have the greatest effect on improving IELT and randomized controlled trials, paroxetine seems to and Citalopram. Based on results from several preferred off label treatment option for PE. Currently used SSRIs are Sertraline, Fluoxetine, Paroxetine and Clomipramine. Based on results from several randomized controlled trials, paroxetine seems to have the greatest effect on improving IELT and delaying ejaculation from 1.5 min before treatment to 7.7 min after treatment[15]. Sertraline and fluoxetine have also been shown to increase IELT and improve patient satisfaction, compared with placebo, although fluoxetine’s long half‑life lends itself to continuous daily dosing rather than on‑demand administration. Dapoxetine

Dapoxetine, a rapidly absorbed SSRI with a short half‑life, has received the most attention of the investigational agents for PE. Dapoxetine, a drug that was specifically developed for the “on demand” treatment of PE, has now become the first and only treatment to be approved for this condition by Health Authorities in a growing number of countries around the world. Dapoxetine has shown to be effective and well‑tolerated in more than 6000 patients included in placebo‑controlled clinical trials.[21,22] In addition, physicians can also provide advice on behavioral and psychological techniques that may help improve PE.

Precautions and adverse events for selective serotonin reuptake inhibitors

Doses that are effective in the treatment of PE usually are lower than those recommended in the treatment of depression, suggesting that the frequency and severity of adverse events also could be less. Some of the more commonly reported side effects predominantly occurring in patients on continuous dosing include: Nausea, fatigue, headache, confusion, and diarrhea. Isolated cases of more serious complications, such as mania[23] and withdrawal symptoms, and potential drug interactions also have been associated with the use of SSRIs.

TCAs (Tricyclic Antidepressants)

Clinical trials evaluating the TCAs for the treatment of PE have focused primarily on clomipramine which has been shown to have favorable effects on IELT in several studies.[14] In a randomized crossover design involving 36 men with PE who were treated with fluoxetine, sertraline, clomipramine, and placebo, clomipramine had the greatest effect on IELT (from 46 sec at baseline to 5.75 min, P < 0.01) and patient sexual satisfaction[24]. Anticholinergic side effects such as drowsiness, dizziness, dry mouth, and fatigue have been reported in clomipramine‑treated patients and may necessitate discontinuation of therapy; on‑demand dosing may minimize these effects and improve patient tolerability.

Other pharmacological therapies

Intracorporal injection of a vasoactive agent, such as alprostadil, and the administration of sildenafil citrate, therapies effective in the management of ED, have been found to increase latency in patients with PE in a few small studies.[25,26] A recent study of 80 men without concomitant ED found that the administration of a combination of sildenafil citrate and paroxetine on a situational basis enhanced the efficacy of paroxetine alone, although there was an increase in the frequency of the side effects of headache and flushing.[27] Underlying these
interventions is the hypothesis that pharmacologic maintenance of a rigid erection reduces the patient’s need to rush to orgasm.

Because ejaculation involves the sympathetic nervous system, adrenergic blockade has been proposed as a treatment for delaying or inhibiting ejaculation. One clinical trial did show modest efficacy with alfuzosin and terazosin.[28]

**Experimental treatment options**

Virtual reality can speed up the therapeutic psychodynamic process, wherein the patient wears a helmet with miniature television screen and earphones to discuss and summarize his thoughts. Another experimental device is “desensitizing band”, which when worn during masturbation does not constrict blood flow and helps the PE sufferer gain control over ejaculation. These are not considered as standard treatment options.

**The role of herbal ingredients**

The benefits of herbal and other natural products are increasingly being sighted. Traditional chinese medicine which evolved out of the physiology and health, was a reflection of the processes observed in natural health. However, understanding how herbs interact with one another in complex herbal formulation is unclear from the western scientific perspective. Some of the commonly used herbal ingredients for PE are epimedium leaf extract, ginseng root, saw palmetto berry ‑ fructus serenoae, muira puama bark extract, catuaba bark extract, hawthorn berry ‑ fructus crataegi.

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