

REVIEW

Recommendations for the management of retarded ejaculation: BASHH Special Interest Group for Sexual Dysfunction

Daniel Richardson BSc MRCP and David Goldmeier MD FRCP, on behalf of the BASHH Special Interest Group for Sexual Dysfunction

Jane Wadsworth Clinic, Jefferiss Wing, St Mary's Hospital, London W2 1NY, UK

Summary: We present the British Association of Sexual Health and HIV (BASHH) special interest group in sexual dysfunction recommendations for the management of retarded ejaculation. The recommendations outline the physiology, prevalence, definitions, aetiological factors and patient assessment for this sexual problem. We suggest treatment strategies, recommendations for management and an auditable outcome.

Keywords: retarded ejaculation, recommendations, management, BASHH

Introduction and definition

Sexual climax in men usually has two contemporaneous components – orgasm, an intensely pleasurable subjective feeling, together with semen being ejaculated from the penis. It has been postulated that the various constituents of semen entering the posterior urethra creates a 'pressure chamber' within the posterior urethra.¹ This triggers the closure of the neck of the bladder and subsequent rhythmical coordinated reflex contractions of the striated pelvic muscles, and antegrade ejaculation of semen. The physiological process of ejaculation is under autonomic control via the hypogastric (sympathetic) and pudendal (parasympathetic) nerves.¹ The exact site of the generation of orgasmic pleasure within the brain is unknown.

In these recommendations we concentrate on men who have difficulty with ejaculation, which may or may not be associated with subjective orgasmic difficulties.

Retarded ejaculation (also known as the male orgasmic disorder, inhibited ejaculation, impaired ejaculation, delayed ejaculation, ejaculatory incompetence, anejaculation, impaired orgasm, inhibited male orgasm, ejaculatory overcontrol) is defined by the American Psychiatric Association (APA) as: '...the persistent or recurrent difficulty, delay in, or absence of attaining orgasm following sufficient sexual stimulation, which causes personal distress.'²

Incidence and prevalence

Most texts state that retarded ejaculation is rare. Masters and Johnson reported only 17 cases out of

448 they assessed and treated in an 11-year period.³ Helen Kaplan stated that her sample size was too insignificant to report.⁴ Studies from the late 1970s provided estimates of prevalence ranging from 4% to 10%.^{5,6} Population samples from the 1990s quoted lower rates ranging from 0% to 3%.⁷⁻⁹ There are some later, albeit bias studies, which found rates of 20-39% in homosexual men, and HIV-infected men.¹⁰⁻¹² A 2003 prospective cross-sectional sample of men attending general practitioners in London reported a rate of 11%.¹³

In 'sexual dysfunction in the US: prevalence and predictors', Laumann and colleagues analysed data collected in the national health and social life survey, and generated prevalence and calculated associated risk factors for sexual dysfunctions.¹⁴ This epidemiological analysis looked at representative sample of American men aged 18 and 59 years. They found that 7.8% (97/1246) of men reported retarded ejaculation occurring for at least one month over the past year.

A more detailed population-based study in the UK of 5000 16-44-year-old men found that 5.3% said that they had experienced an inability to reach orgasm for at least one month in the past year, but only 2.9% had experienced the problem for at least six months in the past year, suggesting that the problem affects many men some of the time.¹⁵

Aetiology

The conventional causes are shown in Table 1. A meta-analysis, which included 560 men, stratified causation as: spinal cord injury (68.9%), retroperitoneal lymph node dissection (20.7%), diabetes mellitus (2.1%), trauma/retroperitoneal surgery (0.9%), multiple sclerosis (0.4%), bladder neck surgery (0.2%) unknown or idiopathic (7.1%).¹⁶

Table 1 Causes of retarded ejaculation

Physiological	Reduced penile sensitivity Slower bulbocavernosal reflexes Idiosyncratic genital stimulation
Age	
Congenital	Mullerian duct cyst Wolfian duct abnormality Prune Belly Syndrome
Anatomical	Transurethral resection of prostate Bladder neck incision
Neurological	Diabetic neuropathy Spinal cord injury Radical prostatectomy Proctocolectomy Bilateral sympathectomy Abdominal aortic aneurysmectomy Para-aortic lymphadenectomy
Endocrine	Diabetes Hypogonadism Hypothyroidism
Drugs	See Table 3
Psychological	Psycho-social

Physiological

It is biologically plausible that men with retarded ejaculation have slower bulbo-cavernous reflexes, lesser penile sensitivity, reduced spinal stimulation and a higher penile sensory threshold than functional men. Indeed, Brindley and Gillan found the bulbo-cavernosus or glandipudendal reflex to be absent in two out of nine men with complete primary ejaculatory failure.¹⁷

Shull and Spenkle suggest that inadequate sexual stimulation may be the problem.¹⁸ There is evidence that men have 'autosexual orientation': they prefer manual stimulation by their own hand rather than partnered sex (of any kind) because they know how to optimally manipulate themselves.^{19,20} Furthermore, men who experience constant (as opposed to varied) sexual stimulation via a mechanism of habituation are probably less likely to achieve ejaculation and orgasm over time.²¹ There are some data describing men who develop an 'idiosyncratic style' of genital stimulation during masturbation, thus disabling their ability to ejaculate during penetrative sexual intercourse.^{19,22}

Age

There is evidence that as men age, sexual organs atrophy, diminished testosterone levels, delay in attaining erections, reduced erection quality, longer in achieving and maintaining a full erection and decline in intensity of orgasm all can occur.²³

Table 2 Age as a predictor for retarded ejaculation¹⁴

Age	Number of men with retarded ejaculation (%) Total=1246
18-29	28 (7)
30-39	28 (7)
40-49	26 (9)
50-59	15 (9)

There is a progressive loss of the fast-conduction peripheral sensory axons, which begins to be apparent in the third decade of life, which may result in a degree of age-related degenerative changes, resulting in difficulty in achieving the ejaculatory threshold.²⁴

Other factors which are suggested to have an effect upon the ageing effect of sexual function are: peripheral vascular disease, diabetic neuropathy, psychiatric illness and lifestyle issues (smoking, alcohol, physical inactivity, boredom and loneliness).²³ Decreased sensitivity of the penis with age has been reported and may contribute to the increase in ejaculation times seen with age.²⁵

Despite this, Laumann, in his cross-sectional population-based epidemiological survey, could not identify age as a predictor of retarded ejaculation (Table 2); however, this study excluded men who were not sexually active or over 60 years old.¹⁴

Congenital and anatomical

Mullerian and Wolffian duct malformation are embryonic abnormalities, which would plausibly lead to a physiological inability for a man to ejaculate.²⁴ Persistence of a small remnant of the Mullerian duct may lead to a cyst forming between the ejaculatory ducts.²⁶ This can cause obstructed and diminished ejaculate, which may impede the trigger for ejaculation by the absence of 'filling of the posterior urethra' and reduced 'prostatic chamber pressure'.¹ Congenital anomalies of the Wolffian duct may be either sporadic with a localized defect in the proximal part of the vas deferens, or there may be a generalized maldevelopment due to a systemic genetic abnormality.²⁷ The latter is usually associated with the cystic fibrosis gene.²⁸ Ejaculatory duct obstruction or ejaculatory failure due to pelvic nerve damage may follow correction of an imperforate anus.

Pelvic surgery

Pelvic surgery may affect a man's ejaculatory function. Radical prostatectomy, whereby the seminal vesicles are removed, results in loss of ejaculation (along with erectile function and orgasm).²⁶ Nerve-sparing procedures were subsequently developed to avoid postoperative loss

of sexual function.²⁹ Trans-urethral resection of the prostate (a common surgical procedure for benign prostatic hypertrophy) and bladder neck surgery have both been shown to cause retarded ejaculation.²⁶

Neurological

The ability to ejaculate is impaired by spinal cord injury. Unlike erectile function, the ability to ejaculate increases with descending levels of spinal injury.³⁰ The ability to ejaculate is severely impaired by spinal cord injuries and is dependent upon the level and completeness of the injury.³⁰ Less than 5% of men with complete upper motor neurone lesions retain the ability to ejaculate.

Sexual problems in multiple sclerosis include erectile dysfunction, ejaculatory disorders and difficulty in reaching orgasm.³¹

Diabetes mellitus

A case control study of 95 men with type 1 diabetes shows a statistical relationship between complications of diabetes and 'orgasmic dysfunction'.^{32,33}

Drugs

Many pharmacological agents have been shown to cause retarded ejaculation (Table 3). In fact, all of the drugs approved for the treatment of depression or obsessive-compulsive disorder, with the exception of nefazodone, and bupropion and possibly escitalopram have been reported to be associated with ejaculatory or orgasmic difficulty.^{34,35} Anticholinergic, antiadrenergic, antihypertensive and psychoactive drugs are also common causes of retarded ejaculation.³⁶

There are no published data on the effects of thiazide diuretics on ejaculation: however, these drugs reduce serum zinc, which may interfere with testosterone metabolism.³⁷ There is a surprising lack of quality scientific evidence for alcohol's effect upon ejaculation: Shakespeare, however,

understood the effect of alcohol on sexual performance: 'Alcohol provokes the desire, but takes away the performance.' (Shakespeare, *Macbeth*; Act II, Scene 3). Isotretinon (accutane), epsilon aminocaproic acid, acetazolamide and naproxen have all been reported to cause retarded ejaculation.³⁸⁻⁴⁰ Monoamine oxidase inhibitors (antidepressants) and guanethidine (antihypertensive) have been shown in small series to cause retarded ejaculation.⁴¹

Selective serotonin re-uptake inhibitors (SSRIs), tricyclic antidepressants, alpha blockers have all been shown in well-constructed randomized placebo-controlled trials to retard ejaculation in men with premature ejaculation compared with placebo.⁴²⁻⁵⁹

Psychological

Shull and Spenkle commented that: 'If the literature is searched long enough, almost any and every psychological problem can be associated with male orgasmic disorder.'¹⁸

It has been suggested that a man who is ambivalent about his commitment to a sexual relationship may 'hold back' as a way of 'assuming power' in a troubled relationship.⁶⁰ Kaplan shares this view, proposing that some men with this problem are overcontrolled individuals and resist 'letting themselves go' because of hostile feelings towards their partner.⁴

Blandy takes a more practical (situational) view. He considers, '...the creaking bed, the thin partition or the toddlers wandering about in search of a 'glass' of water...' are powerful inhibitors of orgasm and ejaculation. He also considers pain as an inhibitory experience: a prepuce, which becomes painfully stretched over an erect penis, or a recurrent painful torn fraenum.⁶¹

Patient assessment

History

This should include an assessment of whether the problem is ejaculatory, orgasmic or both. Associated personal, social or cultural issues as well as a brief psychiatric and medical history should be attained. Careful consideration of prescribed and non-prescribed drugs, including alcohol and the presence of desire and erectile difficulties, should be identified.

Clinical examination

An assessment of the penis and other sexual characteristics is necessary. A careful examination of the nervous system should be carried out to exclude peripheral neuropathy, autonomic dysfunction (by means of lying and standing blood pressure) and spinal cord pathology.

Table 3 Drugs known to be associated with retarded ejaculation

Alpha blockers
Adrenergic neurone blockers
Alcohol
Anti-psychotics
Atypical antidepressants (Trazodone)
Beta blockers
Baclofen
Benzodiazepines
Mono-amine oxidase inhibitors
Naproxen
Opiates
Selective serotonin re-uptake inhibitors
Thiazides
Tricyclic antidepressants

Investigation

A serum glucose and investigation of nervous disease should be undertaken as appropriate.

We consider that all new patients merit at least a 30 minute–1 hour consultation time for their first appointment: however, we are aware that due to local clinic time constraints and waiting times, this may be impossible.

Treatment

General considerations

Clearly, treatment depends upon a correct diagnosis, which requires a detailed medical and sexual history, physical examination and appropriate physiological investigations and imaging, to identify organic causes such as drugs, pelvic surgery, diabetes or congenital abnormality.²⁴

Pharmacological

Retarded ejaculation as a consequence of drug therapy for other conditions (e.g. depression) needs to be carefully considered and discussed with patients on an individual level. Cessation (partial or permanent) of potentially causative pharmacological agents requires discussion with their psychiatrist or general practitioner.

A variety of drugs are reported to have efficacy in men with retarded ejaculation taking antidepressants. The drugs reported have been suggested to facilitate ejaculation by either a central dopaminergic or antiserotonergic mechanism. Most reports concentrate on the management of SSRI-induced retarded ejaculation (Table 4). Discussion with the patient's psychiatrist or general practitioner leading to manipulation of pharmacological treatment of depression or anxiety disorders, which may include drug holidays, may be considered.

Amantadine induces the release of dopamine centrally. There have been two reports of using amantadine to treat fluoxetine-induced retarded ejaculation^{62,63} (level of evidence III). A small retrospective cohort study of men with SSRIs-associated sexual dysfunction used amantadine,

cyproheptadine and yohimbine, which successfully reversed their ejaculatory problem⁶⁴ (Level of evidence III).

Bupropion is a serotonin/norepinephrine/dopamine re-uptake inhibitor and has been investigated in men with SSRI-induced sexual dysfunction with differing results.^{65–67} Despite this, bupropion has been reported to cause a reversal of SSRI-induced retarded ejaculation⁶⁶ (Level of evidence III).

Buspirone, a 5HT_{1A} agonist, has been reported in a prospective study of depressed men and women with generalized sexual dysfunction to reverse the sexual dysfunction side-effects of SSRIs including retarded ejaculation⁶⁸ (level of evidence Ib).

Cyproheptadine is a serotonin and histamine agonist which has successfully been reported to reverse the retarded ejaculation caused by imipramine, nortryptiline, fluoxetine, fluvoxamine and clomipramine^{69–73} (Level of evidence III). Of note, cyproheptadine has a tendency to cause drowsiness, which may affect sexual functioning.⁷⁴ Cyproheptadine has also been reported to reverse citralopram-induced retarded ejaculation⁷⁵ (level of evidence III). Yohimbine is an alpha-2 adrenergic antagonist. Yohimbine has been reported to reverse the retarded ejaculation caused by clomipramine, fluvoxamine, fluoxetine, sertraline and paroxetine^{74,76,77} (level of evidence III).

Psychological therapies

Sex and psychotherapy texts recommend meditative relaxation combined with psychotherapy.⁷⁸ Other authors recommend the addition of viewing erotic films, sex play, erotic fantasies, sexually stimulating literature or magazines, and masturbatory exercises.^{60,79} Munjack and Kanno report a success rate for sex therapy between 42% and 82% in a meta-analysis³⁶ (level of evidence IV).

Bancroft assumes in his therapeutic methods that inadequate stimulation is the 'block' to ejaculation, as he recommends the use of, 'vigorous stimulation using a lubricating jelly or cream to overcome the block'.⁸⁰ This technique follows on that once a man can ejaculate extra-vaginally, his penis is then introduced closer and closer to the vaginal opening, introducing short periods of vaginal entry into the procedure (level of evidence IV).

Hawton discusses that during masturbatory exercises with the partner, the man must be trained to concentrate on genital stimulation.⁷⁹ He also recommends the male-superior position as he postulates that this often facilitates ejaculation. Hawton, Bancroft and Winzce recommend the use of vibrators to increase sexual arousal^{160,79,80} (level of evidence IV).

Practical aspects of therapy are outlined clearly by Jannini and colleagues.⁸¹ They advise that any fears or anxieties such as fear of pregnancy and sexually transmitted diseases should be discussed

Table 4 Adjunctive pharmacotherapy for SSRI-induced retarded ejaculation²⁴

Drug	As needed (mg)	Daily
Amantadine	100–400 (for 2 days prior to coitus)	75 mg–100 mg bd or tds
Bupropion	75–150	75 mg bd or tds
Buspirone	15–60	5–15 mg bd
Cyproheptadine	4–12	On demand
Yohimbine	5.0–10.0	5.0 mg tds

SSRI=selective serotonin re-uptake inhibitors

at the outset. Hypnosis has been described as a useful adjunct to therapy⁸² (level of evidence IV). Delmonte described a meditative relaxation method together with brief supportive psychotherapy for both partners in a report of two couples.⁷⁸ Sex play as a treatment for retarded ejaculation has been described anecdotally in a small cohort^{83,84} (Level of evidence III).

Conclusion

Retarded ejaculation is an uncommon problem, which may present to genitourinary medicine settings. The definition of this condition does not appear to have reached consensus among all therapists and researchers. There are few case reports and case-controlled studies describing possible aetiological factors and associations; however, well constructed, hypothesis testing trials for these factors have not been done. It seems clear that many psychoactive drugs may cause retarded ejaculation. Careful consideration of drug-induced sexual problems needs to be considered when prescribing such agents and awareness of possible antidotes. Although the literature is lacking in quality scientific evidence for the management of this condition, a wealth of anecdotal and expert opinion is available, particularly from psychologists and psychosexual therapists. Surely, therefore, an eclectic approach is needed for patients presenting with this condition, which includes screening for possible identifiable organic and psychosocial factors, clear discussion with patients and their partners, and subsequent tailoring of therapy to their individual needs.

Recommendations

- The diagnosis of retarded ejaculation is from clinical history based on the DSM IV.
- In men with concomitant erectile dysfunction, the erectile dysfunction should be treated first
- The risks and benefits of all treatment options should be discussed with patients prior to any intervention. Patient and partner satisfaction is the primary outcome target.
- Management of patients should be decided on a case-by-case basis: an eclectic approach should be adopted.
- Patients should be aware that pharmacological adjuvants to SSRI-induced retarded ejaculation are not licensed uses of these products.

Auditable outcomes

Auditable outcomes: All patients with retarded ejaculation must have a full history (including sexual history) and clinical examination.

Levels of evidence

la	Evidence obtained from meta-analysis of randomized controlled trials
lb	Evidence obtained from at least one randomized controlled trial
IIa	Evidence obtained from at least one well-designed controlled study without randomization
IIb	Evidence obtained from at least one well-designed quasi-experimental study
III	Evidence from well designed non-experimental studies such as comparative studies, correlation studies and case studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities

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