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SHAFT

SEXUAL HEALTH & FERTILITY TREATMENTS

Newsletter by

105, 1st Floor, EVR Road,
Puthur, Trichy – 620017
Tamil Nadu
+91- 87780 59527

andregn Clinic
Centre for Regenerative Andrology & Sexual Medicine
www.andregn.com

Om Ekam Eva Adviteeyam brahma |
Sannama roopa vivarjitham ||

Hello!

Ejaculation is a fascinating event closely tied to pleasure, often coinciding with orgasm. These parallel physiological processes are beautifully synchronized by the will of the One and Only Supreme Creator, serving two purposes: creating life (pregnancy) and fostering connection (emotional bonding).

This issue focuses on ejaculation disorders, including premature ejaculation, retarded or anejaculation, and retrograde ejaculation. Often, these issues can be addressed by understanding the patient's perspective on sexual pleasure and performance, enabling structured counselling for men or couples. However, execution is challenging, particularly in meeting patients' time-bound expectations for outcomes. In many cases, combining counselling with medication offers a holistic approach, delivering immediate and sustained results.

To enhance understanding, we feature expert commentaries and lecture links by **Dr. Rupin Shah** (Mumbai), **Dr. Gajanan Bhat** (Sirsi), and **Dr. Ege Can Şerefoğlu** (Istanbul). Drawing on decades of experience, they share insights into treating ejaculation disorders, covering non-pharmacological, pharmacological, and device-based approaches.

Join me in delving into the rich complexities of insights surrounding the treatment of ejaculation disorders.

We highly value your feedback and support in sharing this newsletter with your peers and community. Together, let's create a more open and informed dialogue around sexual health and fertility, and improve the well-being of individuals everywhere.

Best regards,
Dr.M.Natesh Prabhu MD,
FCSM, CCEBDM, ACC, (FCRM), (PhD),
Men's Sexual Health, Fertility & Regenerative Medicine
Andregn Clinic, Trichy, Tamil Nadu
andregnclinic@gmail.com
www.andregn.com

Male Ejaculation: Anatomical and Physiological Overview

Male ejaculation is a complex physiological process that involves the coordination of multiple anatomical structures and neural pathways. It occurs in two phases: Stage 1: emission and Stage 2: expulsion.

Emission Phase:

During emission, seminal fluid components from the seminal vesicles, prostate gland, and epididymis are transported to the posterior urethra. The process is controlled by the sympathetic nervous system, primarily through signals originating from the T10–L2 spinal cord segments. Contraction of the vas deferens propels sperm from the epididymis into the ejaculatory ducts, while secretions from the prostate and seminal vesicles contribute fluid and enzymes. The internal urethral sphincter closes to prevent retrograde ejaculation into the bladder.

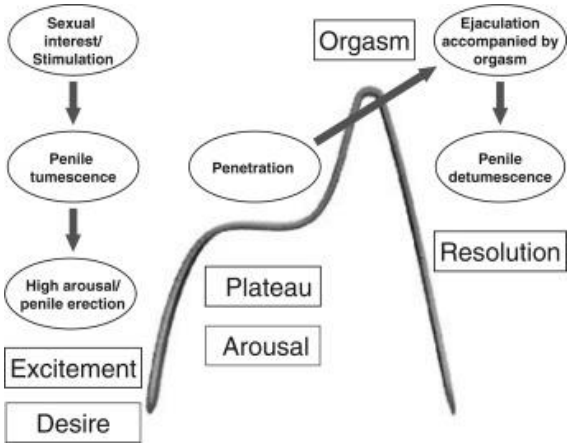

Fig 1: Human Sexual Response cycle

In our previous issue (vol-2) we have elaborated on the various models of human sexual response cycle. Click here to read it

Expulsion Phase:

Expulsion involves rhythmic contractions of the bulbospongiosus and ischiocavernosus muscles, driven by somatic motor signals via the pudendal nerve. This phase is mediated by a spinal reflex arc involving sensory inputs from the penile skin and glans (via the dorsal nerve of the penis) and efferent signals from the S2–S4 spinal segments. The coordinated contraction of pelvic floor muscles and increased intra-urethral pressure propel semen out through the urethral meatus.

Neurotransmitters like norepinephrine and nitric oxide play roles in modulating smooth muscle contraction and relaxation, essential for ejaculation. Dysfunctions in this process can result in anejaculation, retrograde ejaculation, or premature ejaculation.

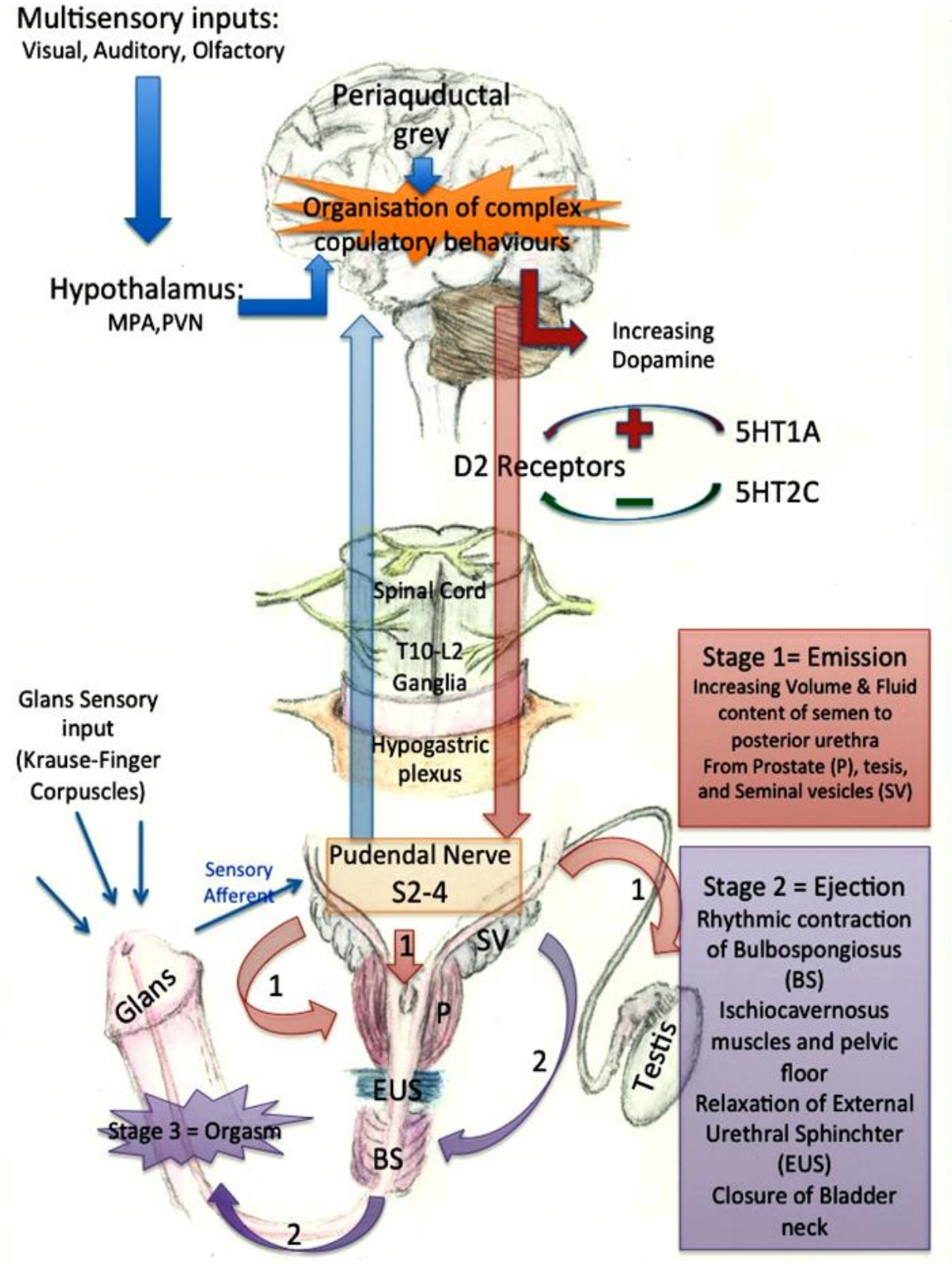

Fig 2: The Ejaculatory Process | Ref: Urology News | Volume 19 Issue 2 | January/February 2015

Premature Ejaculation: A Comprehensive Overview

The term itself is self-explanatory and it's often associated with pun and ridicule right from Hollywood's American pie to Kollywood's Boys. It is often linked to male sexual stamina and female's unfulfilled desire. It is easier to treat but challenging to make the men medication free.

Introduction

Premature ejaculation (PE) is one of the most common sexual disorders affecting men worldwide. It is characterized by ejaculation that occurs sooner than desired, often causing distress for the individual and their partner. PE can significantly impact a man's quality of life, self-esteem, and interpersonal relationships. The understanding of PE has evolved over time, encompassing a broader range of etiological factors, classifications, and treatment modalities.

Classification

PE can be broadly classified into two categories:

1. *Primary (Lifelong) Premature Ejaculation:*
   - This form of PE begins with a man's first sexual experience and persists throughout life.
   - It is often linked to genetic or neurobiological factors.

2. *Secondary (Acquired) Premature Ejaculation:*
   - This develops later in life after a period of normal sexual function.
   - It is typically associated with underlying medical, psychological, or relationship factors.

Other subclassifications include:

- Subjective PE - When a man perceives ejaculation as too early, but the timing is within normal ranges.
- Variable PE - When PE occurs intermittently and is not consistent.

The International Society for Sexual Medicine (ISSM) defines PE based on an intravaginal ejaculatory latency time (IELT) of less than one minute for primary PE and less than three minutes for secondary PE.

This definition has been often a research tool to assess the efficacy of a treatment offered. In reality its mostly a perception and couple satisfaction. Newer assessment tool like Holding Time (HOT) devised by Dr.Gajanan Bhat has received research recognition from ISSM.

Etiology

The causes of PE are multifactorial, involving biological, psychological, and interpersonal elements:

1. *Biological Factors:*
- Neurotransmitter Dysregulation: Low serotonin levels in the brain, particularly in areas controlling ejaculation, have been implicated.
- Genetic Factors: Studies suggest that genetic predisposition plays a role in lifelong PE.
- Penile Hypersensitivity: Heightened sensitivity may contribute to reduced ejaculatory control.
- Medical Conditions: Prostatitis, hyperthyroidism, and erectile dysfunction (ED) are associated with secondary PE.

2. *Psychological Factors:*
- Performance anxiety, depression, and stress are commonly linked to PE.
- Early sexual experiences, including negative or traumatic ones, can predispose individuals to PE.

3. *Interpersonal Factors:*
- Poor sexual communication and relationship conflicts can exacerbate PE symptoms.

Prevalence

Global

- PE is estimated to affect 20-30% of men globally, making it one of the most common male sexual dysfunctions.
- Lifelong PE is less prevalent than acquired PE.

India

- Studies suggest that PE affects approximately 20-25% of Indian men.
- Cultural factors, lack of sexual education, and stigma around discussing sexual health may contribute to underreporting.
- PE is often misdiagnosed or conflated with other sexual dysfunctions due to limited awareness among patients and healthcare providers.

Treatment Options

Management of PE involves a combination of pharmacological, behavioural, and psychological approaches tailored to individual needs:

1. *Pharmacological Treatments*

- *Selective Serotonin Reuptake Inhibitors (SSRIs)*
  - Dapoxetine
    - A short-acting SSRI *specifically approved* for PE in several countries, including India.
    - Taken on-demand, it has shown efficacy in delaying ejaculation with minimal side effects.
  - Drugs like paroxetine, sertraline, and fluoxetine are commonly *prescribed off-label* for PE.
  - These medications increase serotonin levels, delaying ejaculation.
  - Side effects may include nausea, fatigue, and reduced libido.

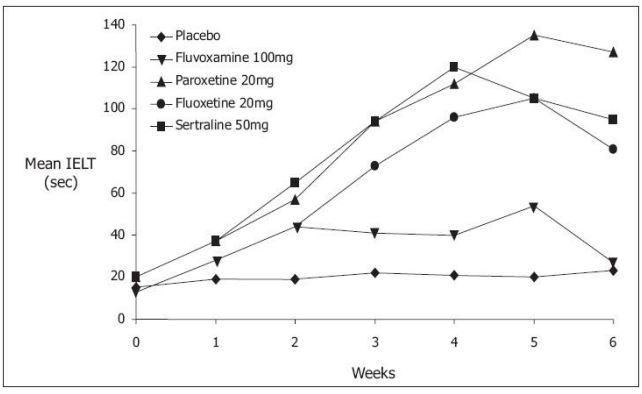

Fig 3: Selective serotonin reuptake inhibitors produce ejaculatory delay within 5-10 days | Ref: Journal of Clinical Psychopharmacology 18(4):p 274-281, August 1998.

- Topical Anesthetics
    - Lidocaine or prilocaine creams and sprays are used to reduce penile sensitivity.
    - These can be effective for men with penile hypersensitivity but may reduce pleasure.
    - Too much can cause penile numbness which can cause erectile dysfunction and even cause abrasion due to prolonged penetrative activity especially non-vaginally.

- Phosphodiesterase-5 (PDE5) Inhibitors
    - Drugs like sildenafil or Tadalafil are sometimes used in combination with SSRIs for men with both PE and ED.

2. *Behavioural and Psychological Interventions*

- *Psychotherapy and Counselling*
    - Cog nitive-behavioural therapy (CBT) helps address anxiety, performance fears, and relationship issues.

- *Behavioural Techniques*
    - The "start-stop" method and "squeeze" technique are commonly taught to delay ejaculation.
    - Pelvic floor exercises (e.g., Kegel exercises) improve ejaculatory control.

3. *Device-Based Treatments*

- Newer devices, such as vibratory stimulators or ejaculatory control devices, are under investigation for managing PE. *We will be covering a special issue on medical devices for sexual dysfunction and more details on this will be provided.*

4. *Lifestyle Modifications*

- Regular exercise, stress management, and avoiding excessive alcohol or recreational drug use can improve symptoms.
- Prolong sitting like in desk jobs can lead to pelvic flood muscle weakness. This can be avoided by keeping sedentary reminders in their smart watch which prompts them to move / stretch at frequent intervals.
- Boxed breathing or Parasympathetic breathing or Pranayama has shown benefit in few studies.

5. Surgical Management

- Should be kept as a last resort for refractory patients.
- Efficacy varies from surgeon to surgeon and not uniform in all patients when even done by the same surgeon.
- No recommendations from ISSM from any of the surgical procedures.
- Surgical procedures
    - Dorsal penile nerve cryoablation
    - Hyaluronic acid gel glans augmentation
    - Inner condom technique (Porcine Acellular Dermal Matrix for Penile Augmentation)
    - Botulinum toxin injection into Bulbospongiosus
    - Pulsed radiofrequency neuromodulation
    - Perineal transcutaneous stimulation
    - Circumcision

Managing PE involves several challenges for the doctor as well as the patient

1. *Stigma and Awareness*

- Many men are reluctant to seek help due to cultural stigma and embarrassment.
- Limited sexual education in many societies, including India, perpetuates myths and misconceptions.

2. *Diagnosis*

- Distinguishing between lifelong and acquired PE, or between PE and other sexual dysfunctions, can be difficult.
- Lack of standardized diagnostic tools in routine clinical practice adds to the challenge.

3. *Treatment Adherence*

- Long-term adherence to treatment plans is low due to side effects of medications, dissatisfaction with outcomes, or unrealistic expectations.

4. *Access to Care*

- In resource-limited settings, access to trained professionals and advanced treatment options remains a significant barrier.

5. Individual Variability
- PE's multifactorial nature means that a single treatment approach rarely works for all patients, necessitating personalized care.

A stepwise approach to PE management can be summarized as follows:

1. *Initial Assessment*
- Detailed medical, sexual, and psychological history.
- Physical examination to rule out underlying conditions (e.g., prostatitis, thyroid disorders).
- Assessment of IELT and patient-perceived distress.

2. *Education and Counselling*
- Explain the condition and normalize the conversation to reduce stigma.
- Provide reassurance and involve the partner when appropriate.

3. *First-Line Treatments*
- Behavioural techniques (start-stop, squeeze methods).
- Topical anesthetics for men with penile hypersensitivity.

4. *Second-Line Treatments*
- Initiate pharmacological therapy with on-demand dapoxetine or SSRIs.
- Consider combination therapy with PDE5 inhibitors if comorbid ED is present.

5. *Third-Line Treatments*
- Refer to a specialist for persistent or refractory cases.
- Explore advanced interventions, such as psychotherapy or investigational device-based treatments.

6. *Follow-Up*
- Regularly evaluate progress and modify treatment plans based on patient response and preferences.

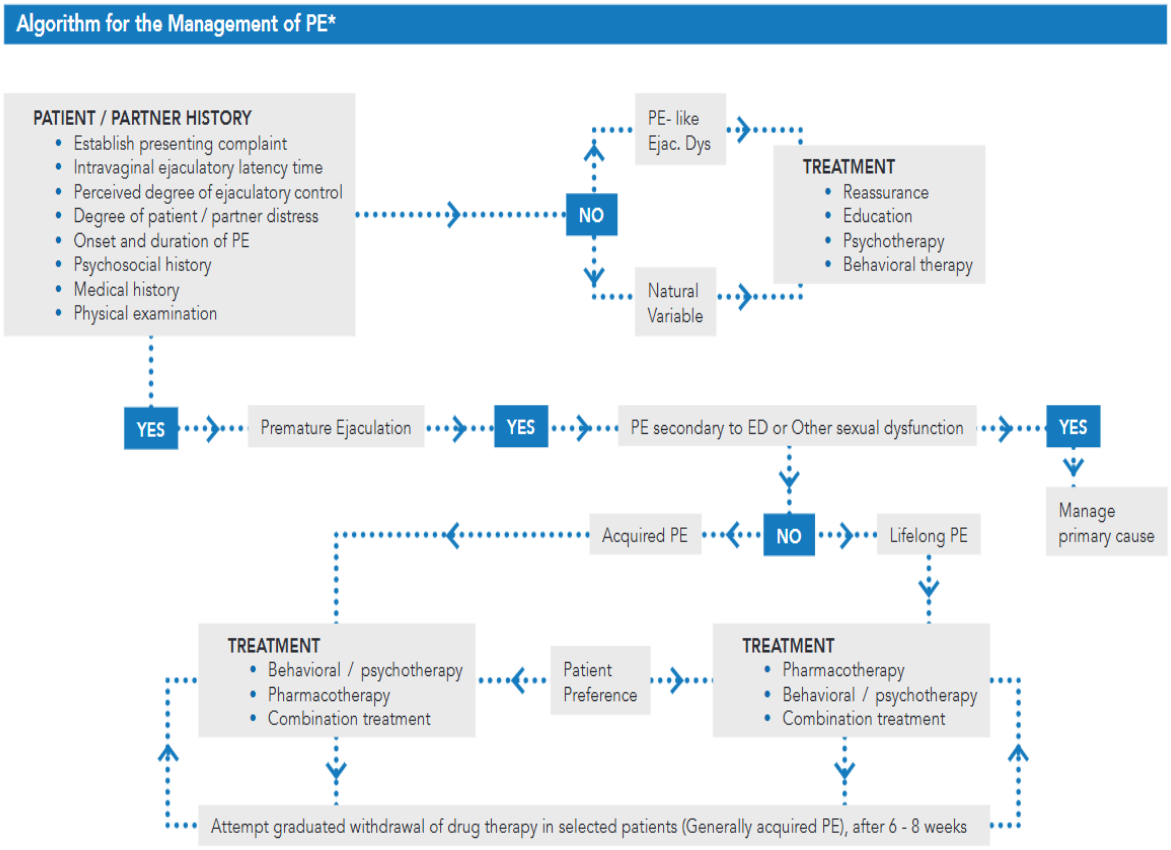

Fig 4 | Ref: https://www.issm.info/media/attachments/2021/08/17/03-clinical-guidelines---issm-quick-reference-guide-to-pe--vjan2015.pdf

SHAFT 2023 featured two expert lectures on Premature ejaculation. Click the pic to access the video

(Anejaculation/Retarded/Retrograde ejaculation to be continued in our next issue)