Treatment and Evaluation of Anorgasmia in Men

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Disclosures

• I have no disclosures for this talk
**Definitions**

Anorgasmia and anejaculation are some of the most misunderstood definitions.

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<thead>
<tr>
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<th>Ejaculation Present</th>
<th>Ejaculation Absent or disordered</th>
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<td><strong>Orgasm present</strong></td>
<td>- Normal function</td>
<td>- Retrograde ejaculation</td>
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<td>- Functional or latency difficulties (PE to DE)</td>
<td>- Post radical prostatectomy</td>
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<td>- RPLND</td>
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<td>- SCI</td>
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<td><strong>Orgasm absent</strong></td>
<td>- Neurogenic (SCI, MS)</td>
<td>- Anejaculation (failure to have seminal emission and propulsatile ejaculation)</td>
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<td><strong>(anorgasmia)</strong></td>
<td>- Anhedonic ejaculation (psych and iatrogenic)</td>
<td>- Prostatectomy</td>
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Today’s talk

• ...will focus on the causes and treatments for male anorgasmia, or the condition where men do not experience orgasm (whether or not they ejaculate)

• in men with normal function, reaching ejaculation promotes orgasmic sensations

• **MOST** pathology is seen with men who do not experience orgasm as a result of not attaining ejaculation either
What is orgasm?

- No good scientific definition
- Argued about
- Mystifying to those who have not experienced it
- Pleasurable sensation felt in the pelvic area and/or body and/or abdominal viscera at the point of ejaculation AND/OR the peak of sexual arousal followed by a feeling of release
- This is CEREBRAL INTERPRETATION of some form of autonomic event
- Can occur without ejaculation, erection or a penis
Sex Response Cycle

- **Orgasmic threshold**
- **Orgasm** (ejaculation: men)
- **Refractory period** (men)
- **Parasympathetic**
- **Sympathetic**

*Interest?*
Dopamine increases, then oxytocin, prolactin and endorphins are released at orgasm.
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Ejaculation Occurs, No Orgasm

If neurogenic – initially anorgasmic, some men with SCI learn to have orgasmic sensation derived from
  - non-genital sources
  - morphed pelvic visceral sensations
    ( i.e. anal /prostatic stimulation even if complete )
  - mild autonomic dysreflexia

If iatrogenic – switch/stop offending drugs ( desipramine)

If anhedonic – harder to treat
  - do rule out reversible causes such as low testosterone, poor pelvic floor awareness
  - psychiatric diagnosis/treatment
## Anorgasmia

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<td>Psychogenic - anhedonic ejaculation</td>
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<td>Functional/acquired - severe delayed ejaculation</td>
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Ejaculation centers

- Sympathetic centers (emission)
- Lumbar Spinothalamic spinal generator of ejaculation
- Somatic (expulsion)
- Parasympathetic (secretion)
Disordered ejaculation and anorgasmia

Can any semblance be reconstructed in order to recruit some recognizable afferents again?

**MS** – can be helpful to have pelvic floor therapy or sex therapy to pay attention to remaining pelvic floor afferents

  - learn how to breathe, accentuate pre-orgasmic arousal

**Post –prostatectomy**: *may* regain improved sensation

Sex therapy: “*The greater the anatomical damage, the more psychotherapy facilitates adjustment to the loss rather than restoration of function*” (Perelman 2014)
# Anorgasmia

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Neurogenic Anorgasmia/Anejaculation

- INTERRUPTED cord functioning (spinal stenosis) or autonomics (pelvic surgeries and rectal cancer surgery) is difficult to resolve
- Most of these men had normal ejaculation/orgasm prior to surgery/stenosis so the extent of autonomic preservation (and anatomy) dictates ability to recover
- Congenital anomalies of the Wolffian duct (incomplete regression of Mullerian duct remnants) may affect ejaculation and cause DE
- Circumcision??
- *Use of sex therapy important*
Vibrators for men with without SCI

WAHL

Acuvibe

Hitachi Magic Wand & others

Pulse

Cobra

Viberect FDA approved
Spinal Cord Injury Anejaculation

- Most men with SCI have anejaculation (90%) but 45-50% are subjectively orgasmic – why?
- The chance of experiencing orgasm is increased if they can ejaculate somehow (less chance with sacral lesions)
- What can we do to excite the spinal cord enough to trigger the ejaculation reflex?
- Can sometimes add a sympathomimetic (but watch AD)
- INTACT cord good (i.e. sacral reflex) because we can alter the amplitude and frequency of vibrostimulation to induce ejaculation
- *Can repetitive action cause neuroplasticity over time such that the subjective sensation of release is realized?*
Penile Vibrostimulation (PVS)

Reliant on an intact lumbosacral reflex
Reflex erections and +BCR promising signs
Higher and more complete the lesion = less interference and better chance
Afferent recruitment and neuroplasticity the key to orgasm after SCI
Functional Anorgasmia

• End of the spectrum of functional ejaculatory disorders +/- biological variability

Spectrum of Ejaculatory Disorders

- Anejaculation
- Delayed Ejaculation
- "Normal" Ejaculation
- Retrograde Ejaculation
- Premature Ejaculation

STP Model Depicting IELT Still WNL
Vs. “Delayed Ejaculation”

DE: The net effect of all biopsychosocial-behavioral and cultural factors; depicted when “distress” is experienced and STP moves past one SD, to 2 SD beyond mean IELT (>25 min).
Aquired Anorgasmia...

• ...is the result of neurological disruption, hormonal alterations, inadequately trained reflexes, masturbatory habits, psychological suppression, and medication side effects
• Find any reversible or medical alterations first
• Add excitatory central and peripheral stimulants and lower inhibitory ones
• Then leave it to the sex experts!
SSRI induced anorgasmia

• Facilitate ejaculation through central dopaminergic or anti-serotonergic mechanism of action, or peripheral adrenergic mechanism of action
• Amantadine
• Buproprion
• Buspirone
• Cyproheptadine
• Yohimbine
Ability to reach orgasm 3 years post Robotic-assisted Laparoscopic Prostatectomy

• In their sample, 27% had good ability to reach orgasm at a mean of 3 years after RALP.
• Poor orgasmic ability was associated with being older, poor erectile function, and a reduced physical quality of life.
• Using erectile aids increased the rate of good ability to reach orgasm.

Urology 2016 Jun;92:38 – 43
Hormonal Disorders

• Corona et al, after adjusting for age and other parameters, used a regression model to conclude that prolactin, TSH and SSRI were independent causes of prolonged IELT found in patients complaining of delayed ejaculation.

• BAD: too much prolactin (lowers T), low T, hypothyroidism, older age.

• Solution: lower prolactin, normalize T and thyroid hormone.

Primary Delayed Orgasm/Anorgasmia

- Unable to reach orgasm despite normal excitement phase which is judged to be adequate in focus, intensity and duration with respect to age, causes distress and not from anything else identified.
- Rare: prevalence 1 – 10% depending on age and co-morbidities.
- May be a neurobiological variation of “normal” ejaculation statistical distribution curve but could be hypofunction of 5-HT1A receptor or hyperfunction of 5-HT 2c receptor.
- May be a result of inadequate experience or masturbatory techniques and/or guilt.
- Congenital or prepubertal neurological issues.
- Can be accompanied by nocturnal emissions.

New theories behind primary delayed ejaculatory latency

• Rat studies (2016): the spinal generator for ejaculation behaves as a neural oscillator whose function can be modified by internal and external demands.

• Human studies (2013): need the afferent dorsal nerve to be able to ejaculate (even in SCI):
  - Somatosensory evoked potentials (SEPs) suggest the nerves on the penile shaft, vs the glans, is reduced in DE patients (penile shaft rather than glans hyposensitivity and hypoexcitability).
  - Why the decreased DN SEPT latencies? (from receptor dysfunction, reduced activation of afferent nerves, slowed peripheral conduction, over masturbation?)

Carro-Juarez Austin Andrology 2016  Xia J-D Andrology 2013
Why isn’t there a simple solution?

Orgasmatron in 2173??
High Inhibition, Low Excitation Sexual Dysfunction

Dopamine Agonists
- Bupropion 75 - 150 mg/day
- Cabergoline 0.5 mg q M/Th
- Ropinirole 0.25 mg QD – TID

PDE 5 Inhibitors
- Sildenafil 12.5 - 50 mg
- Tadalafil 2.5 – 10 mg
- Vardenafil 2.5 – 10 mg

Oxytocin (Pitocin)
- Oxytocin Lozenge 250 U – one hour before sexual activity – may increase up to 3 at one time

Norepinephrine Agonist
- Yohimbine HCl 5.4 mg - one hour before sexual activity - up to 3 at one time

Amphetamines – non-catecholamine sympathomimetic amines with CNS stimulant activity
- Amphetamines are thought to block the reuptake of norepinephrine and dopamine into the presynaptic neuron and increase the release of these monoamines into the extraneuronal space
- Amphetamine, dextroamphetamine mixed salts: 10 – 30 mg – take 4-6 hours prior to sexual activity

Opioid Antagonists
- Naltrexone 50 mg/day

Serotonin Antagonists
- Buspirone 10 - 15 mg BID

Increase Neurotransmission
- Dalfampridine 10 mg/day

Courtesy Dr. Irwin Goldstein
Drugs for delayed orgasm/ejaculation

Enhances dopamine

• Cabergoline
• Amantadine
• Apomorphine
• Buproprion

Facilitates ejaculation (NE) and/or anti-serotonergic

• Buproprion
• Cyproheptadine
• Alpha1 – adrenergic agonists (pseudoephedrine, ephedrine, mididrone, imipramine)
• Yohimbine (facilitates NE)
• Low dose oxytocin

Abdel-Hamid, I A et al
The drug treatment of delayed ejaculation
Transl Androl Urol 2016;5(4):576-591 “Selection of drugs is in its infancy”
Summary

- Orgasm ≠ ejaculation
- Neurologically intact men have supratentorial inhibition that must be removed prior to orgasm occurring
- Anorgasmia exists with or without ejaculation
- However, reaching ejaculation is the best chance of experiencing orgasm in neurologically intact men
- Ejaculatory latency is a biobehavioral response
- There may be a predisposition for a particular hardwired latency and medical or psychological factors can interfere with ability to ejaculate and experience orgasm*
- The pharmacological/hormonal/vibratory solutions work best with a discernible cause – otherwise full utilization of sex therapy is the best solution to achievement of orgasm or acceptance of alternative sexual gratification.

* David Rowland, Sexual Dysfunction in men: DE chapter 2012
Thank you for listening!

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