Delayed Ejaculation

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SMSNA 2017
Disclosures-2017

- Consultant/Lecturer/Advisory Board
  - Coloplast, Endo
Delayed Ejaculation

Definition:

• Subjective: DSM-5: marked delay, infrequency or absence of ejaculation
  • occurred for 6 months time
  • Causes distress (patient and/or partner)
  • Not associated with a specific disorder/mental condition/stressor or medication

• Objective: **IELT >20-25 minutes** (2 SD from mean 5.7 minutes)
Delayed Ejaculation

- Why is it important?
  - Procreation
  - Intimacy
    - Relationship conflict
    - Anxiety
    - Lack of confidence
    - Poor body image
  - Psychologic Well Being - Am I Sick
    - Both patient and partner, relationship stress
Delayed Ejaculation Definitions

- WHO
- Delayed Orgasm
- Persistent, recurrent difficulty, delay in, or absence of attaining orgasm after sufficient sexual stim WITH personal distress

- International Consultation on Sexual Medicine
- Anorgasmia
- Perceived absence of orgasm, independent of the presence of ejaculation
NEUROLOGICAL CONTROL OF EJACULATION

- Seminal Emission
  - Contraction of the seminal vesicles, vasa
  - Closure of the bladder neck
  - Increased pressure in posterior urethra
  - T1-L2
  - Sympathetic control

- Antegrade Ejaculation:
  - Antegrade propulsion of semen from urethra out of the penis
  - Pudendal S-2 to S-4
  - Somatic
  - Rhythmic contraction of ischiocavernosal and bulbocavernosus muscles
Ductus deferens
Seminal vesicle
Ampulla
Spinal ganglia T11-
(Sympathetic)
S2-S4 Erection
Epididymis
Prostate
Somatic
Antegrade Ejaculation-Somatic
Orgasm not EQUAl to Ejaculation

- **Orgasm (Brain)**
  - Greek orgeo – “to be on fire from passion”
  - Psychophysiological event
  - Takes place at point of highest excitement
  - ? related to pressure build up in posterior urethra during ejaculation

- **Ejaculation (Fluid)**
  - Neurophysiological event
  - Two parts as described
  - CAN have orgasm WITHOUT ejaculation (injury to sympathetics)
  - Can ejaculate/orgasm WITHOUT an erection (injury to cavernosal nerves-NO)
Dopamine

Serotonin

Figure 1. Neurophysiology of ejaculation. Reprinted with permission from Giuliano et al.\textsuperscript{15}
Delayed Ejaculation

- Prevalence: ?? 3% (1% lifelong, 4% acquired)
- Delayed vs absent vs. abnormal?
- Appears to increase with age, ?LUTS
- Increased with diabetics, medications
Delayed Ejaculation: History

- Primary (lifelong) or secondary (acquired)
- Global (all the time) or situational (specific scenarios - intercourse but not masturbation, ovulation cycle?, porn?)
- Associated with decreased QOL and self esteem, anxiety and depression
- Associated with fertility issues
Delayed Ejaculation: History

- Do we have a validated questionnaire?
- Kind’ve !!

- MSHQ full, MSHQ-Ejd

- EjD Questionnaire Address:
- 4 Questions: Frequency, Strength, Volume, Bother
- NOT time !!!
### Table 4. MSHQ-EjD Short Form for Assessing EjD

<table>
<thead>
<tr>
<th>In the past month:</th>
<th>All the time (5)</th>
<th>Most of the time (4)</th>
<th>About half the time (3)</th>
<th>Less than half the time (2)</th>
<th>None of the time/ could not ejaculate (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often have you been able to ejaculate or “cum” when having sexual activity?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How would you rate the strength or force of your ejaculation?</td>
<td>As strong as it always was (5)</td>
<td>A little less strong than it used to be (4)</td>
<td>Somewhat less strong than it used to be (3)</td>
<td>Much less strong than it used to be (2)</td>
<td>Very much less strong than it used to be (1)</td>
</tr>
<tr>
<td>3. How would you rate the amount or volume of semen or fluid when you ejaculate?</td>
<td>As much as it always was (5)</td>
<td>A little less than it used to be (4)</td>
<td>Somewhat less than it used to be (3)</td>
<td>Much less than it used to be (2)</td>
<td>Very much less than it used to be (1)</td>
</tr>
<tr>
<td>Bother/Satisfaction†</td>
<td>No problem with ejaculation (0)</td>
<td>Not at all bothered (1)</td>
<td>A little bothered (2)</td>
<td>Moderately bothered (3)</td>
<td>Very bothered (4)</td>
</tr>
<tr>
<td>4. If you have had any ejaculation difficulties or have been unable to ejaculate, have you been bothered by this?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item Number and Wording</td>
<td>MSH-POP (n = 1079)</td>
<td>UMHS (n = 160)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Frequency of ejaculation: In the past month, how often have you been able to ejaculate or “cum” when having sexual activity?</td>
<td>0.66</td>
<td>0.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Delay of ejaculation: In the past month, when having sexual activity, how often did you feel that you took too long to ejaculate or “cum”?</td>
<td>0.58</td>
<td>0.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Volume of ejaculation: In the past month, how would you rate the amount or volume of semen or fluid when you ejaculate?</td>
<td>0.81</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Force of ejaculation: In the past month, how would you rate the strength or force of your ejaculation?</td>
<td>0.81</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Dry ejaculation: In the past month, when having sexual activity, how often have you felt like you were ejaculating but no fluid came out?</td>
<td>0.41</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Pleasure: Compared to 1 month ago, would you say the physical pleasure you feel when you ejaculate or “cum” has increased a lot, increased moderately, neither increased or decreased, decreased moderately, or decreased a lot?</td>
<td>0.29</td>
<td>0.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Pain: In the past month, have you experienced any physical pain or discomfort when you ejaculated or “came”?</td>
<td>0.25</td>
<td>0.19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue: 2.91, Percentage of variance: 41.6

MSHQ = Male Sexual Health Questionnaire; MSH-POP = Men’s Sexual Health Population Survey; UMHS = Urban Men’s Health Study.
IIEF-Orgasmic Function

<table>
<thead>
<tr>
<th>Q9</th>
<th>When you had sexual stimulation or intercourse, how often did you ejaculate?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 No sexual stimulation or intercourse</td>
</tr>
<tr>
<td></td>
<td>1 Almost never or never</td>
</tr>
<tr>
<td></td>
<td>2 A few times (less than half the time)</td>
</tr>
<tr>
<td></td>
<td>3 Sometimes (about half the time)</td>
</tr>
<tr>
<td></td>
<td>4 Most times (more than half the time)</td>
</tr>
<tr>
<td></td>
<td>5 Almost always or always</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q10</th>
<th>When you had sexual stimulation or intercourse, how often did you have the feeling of orgasm or climax?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Almost never or never</td>
</tr>
<tr>
<td></td>
<td>2 A few times (less than half the time)</td>
</tr>
<tr>
<td></td>
<td>3 Sometimes (about half the time)</td>
</tr>
<tr>
<td></td>
<td>4 Most times (more than half the time)</td>
</tr>
<tr>
<td></td>
<td>5 Almost always or always</td>
</tr>
</tbody>
</table>

Orgasmic Component of IIEF
Frequency
Yes or no
NOT timeliness !!
Delayed Ejaculation

- History
  - Medications, Illnesses

- Physical Examination

- Labs: T, Prolactin, ? TSH

- Penile Sensory Testing

- Intravaginal Ejaculatory Latency Time (IELT)
Delayed Ejaculation

- Treatment options

- Remove the offending agent: SSRI’s, alpha blockers (ejac only), etc

- Pharmacotherapy

- Psychotherapy
Pharmacotherapy

- **No FDA approved treatment** for Delayed Ejaculation

- Mostly small studies, that are underpowered, of low quality evidence base.

- Correct hypogonadism

- Correct hypothyroidism
Paduch et al JCEM 2015
16 week T gel vs placebo with EJD (not delayed)
Primary endpoint: 3-item orgasm questions- MSHS
Secondary endpoint: included orgasmic fxn IIEF
N=66 (completed) hypogonadal men
No statistically significant difference between T and placebo in either of the above
Did NOT look at delayed ejac domain
hypothyroid men treated with replacement (n=14)

Statistically significant improvement in IELT
21 vs 7 minutes (P<.01)

JCEM 2005
Cabergoline (Dopamine Agonist)

- Dopamine agonist on D2 receptors
- Shown to activate 5-HT2b receptors (effects on ejac)
- Limited studies
- 2012 abstract AUA  N=72 anorgasmic men
  - 0.5mg  2x/week
- 69% had improvement (also many started on TRT)
Cabergoline (Dopamine Agonist)

- Dopamine agonist on D2 receptors
- N=4 0.5mg 2x/week
- Testosterone deficient, high or borderline high PRL
- ¼ improved orgasmic function

THAT'S IT!!

Weak scientific evidence for this!!
Buproprion

- Dopamine agonist and NE reuptake inhibitor
- Animal studies show alteration in spinal ejaculation center, increased contraction of vas deferens and epididymis

- Modell et al
- n=10 non depressed men with DE
- (Dose 150-300 mg) 70% improvement in time to ejaculation
Buproprion

- Abdel- Hamid and Saleh
- $n=19$ 150 mg dose
- 25% decrease in IELT, and better control of ejac.

- Only case reports otherwise.

- That’s it!
- Underpowered retrospective studies
Buspirone

- Mixed agonist/antagonist at 5HT1a and DA 2 receptors
- FDA approved for anxiety
- Mechanism via reduced serotonergic tone

- Landen et al (abstract deceiving)
- N=37 men with SSRI induced sexual dysfunction
- Placebo controlled trial
- Addition of buspirone 20-60 mg/day
- In men, no statistically significant improvement of orgasmic function (improved in women).
Oxytocin

- Oxytocin receptors in human and animal genital tract

Animal:
- Low dose injection of oxytocin facilitates ejaculation in lab animals
- Oxytocin receptors in male genital organs

- Conflicting Human studies
Oxytocin

- Human data
- Prospective randomized controlled study n=103 healthy men in an IVF clinic (Walch 2001)
  - 16 IU oxytocin intranasal
  - **No** statistically significant change in ejaculation time

- Burri et al. Double blind placebo controlled cross over trial intranasal OT (24 IU) n=10 healthy men
  - Shorter ejac time than placebo
- Ishak et al. case report 20-24IU treated case of anorgasmia
Oxytocin blocker - Multicenter
No statistically significant difference in IELT
Delayed Ejaculation

- Other drugs tested:
  - Cyproheptadine (antiserotonergic)
  - Amantadine (inhibits NMDA, dopamine agonist)
  - Yohimbine (alpha receptor antagonist)
  - Midodrine (alpha agonist)

- Penile Vibratory Stimulation
Delayed Ejaculation

- Psychotherapy
  - Important
  - Scientific data
  - Very Important
  - Important
  - Scientific data
  - Long term results?
  - Only small, uncontrolled non-randomized studies with non-validated outcome measures

The Sexual Tipping Point® Model

This image is based on the Sexual Tipping Point Model® and is used with the permission of the MAP Educational Fund.”
Delayed Ejaculation

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TAKE HOME MESSAGES
Delayed Ejaculation- Take Home Messages

- Defined by 2SD from Mean as about 25 minutes to ejaculation with patient/partner distress

- Orgasm and Ejaculation are Important for psychological well being and procreation

- There is no definite validated questionnaire although modifications of the 3-4 question MSHQ on ejaculation may be helpful

- History taking is helpful and treating the underlying problem or stopping/changing medications is important
There are no FDA approved treatments for delayed ejaculation. OFF Label treatments are available (most commonly used are Cabergoline, Bupropron and Oxytocin).

Overall, literature is mostly based on retrospective studies that are underpowered and of low quality evidence based data.

Delayed Ejaculation is poorly understood with inconsistent practice patterns among SMSNA members.

There is an IMPORTANT role for psychotherapy that includes both patient and partner.
Delayed Ejaculation: References