Effects of cross-sex hormone therapy on sexual function of transgender women & men

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Background
- In the course of evaluating patient’s sexual function before surgery, we noted that many patients reported noticeable changes in their sexual function, and how satisfied with their “normal baseline” sexual satisfaction

Purpose
- We sought to develop our own “Gender Transition Organ Quality and Sexual Function Inventory”, based on observed changes in sexual function before/after CSHT, and, what sexual function domains our patients communicated were important to them
- We sought to assess whether GAS affected the orgasm quality/satisfaction domain we identified as important to patients

Methods
- We kept a list of changes in orgasm quality & orgasm sexual function that patient reported experiencing after starting CSHT
- We also conducted focus groups and asked transgender women and men about what factors related to organs (i.e. orgasm quality and orgasm-related sexual function) were most important to them
- This work generated a list of 6 domains:

<table>
<thead>
<tr>
<th>Gender Transition Organ Quality and Sexual Function Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The amount of time necessary to reach orgasm</td>
</tr>
<tr>
<td>2. How long the orgasm lasts (i.e. “duration”)</td>
</tr>
<tr>
<td>3. Body location of the orgasm-preferential areas (genital only, vs. mixture)</td>
</tr>
<tr>
<td>4. Decreased refractory period after CSHT (p*&lt;0.005)</td>
</tr>
<tr>
<td>5. Duration of the post-orgasm refractory period</td>
</tr>
<tr>
<td>6. Overall satisfaction with orgasm quality &amp; function</td>
</tr>
</tbody>
</table>

Results
- Within groups by gender, Trans Women and Trans Men cohorts reported similar responses to our inventory before starting CSHT
- After CSHT, Transgender women reported significant differences:
  - Increased time necessary to achieve orgasm (p*<0.005)
  - Increased refractory period after CSHT (p*<0.005)
- Change from orgasm-preferential organs before CSHT to multi peak orgasms after CSHT
  - Inorgasm experience throughout body (chest, back, legs, vs. genital area only)

- Decreased overall satisfaction with orgasm— but a notable small subgroup of these patients reported similar responses to our inventory before starting CSHT

Conclusions
- The changes in orgasm quality and sexual function we report suggest that patients should be counseled about such possible changes when they commence CSHT
- These changes also suggest that surgeons should discuss organ quality and sexual function before GAS, as patients may misinterpret changes to organs that have already occurred before surgery due to CSHT, to the surgery itself

Discussion
- Our study suggests that transgender women patients commencing CSHT experience notable changes in orgasm and sexual function
- These changes are, overall, positive, but transgender women do endure longer time to achieve orgasms
- Transgender men appear to experience slightly longer orgasm durations, but otherwise no changes in sexual function with masculinizing CSHT
- Time to the changes we observed is generally 6-12 months
- Because patients who had already undergone GAS responded similarly to patients who had not had GAS, these findings suggest that GAS appeared to not affect organs these domains

Changes in Orgasm and Sexual Function BEFORE vs. AFTER commencing Cross-Sex Hormone Therapy

- Mean Age (years)
  - Women: 44.5
  - Men: 50

- % of patients
  - Women: 15%
  - Men: 9%

- Changes in Orgasm and Sexual Function
  - Women: 71%
  - Men: 71%

- Overall sexual satisfaction
  - Women: 80%
  - Men: 80%

- Mean months of CSHT
  - Women: 14.1
  - Men: 9.7

Figure 1
Patient Cohort

- Previous Vaginoplasty WITHOUT Neovaginal Canal
- Previous Vaginoplasty WITH Neovaginal Canal
- Previous Orchiectomy Only
- No Prior Genital Surgery

Table

<table>
<thead>
<tr>
<th>Patient Cohort</th>
<th># Patients</th>
<th>Avg. Age (years)</th>
<th>% of patients</th>
<th>Mean months of CSHT</th>
<th>Change in optimal and sexual function BEFORE vs. AFTER commencing CSHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Vaginoplasty WITHOUT Neovaginal Canal</td>
<td>15</td>
<td>44.5</td>
<td>15%</td>
<td>14.1</td>
<td>69%</td>
</tr>
<tr>
<td>Previous Vaginoplasty WITH Neovaginal Canal</td>
<td>7</td>
<td>54.0</td>
<td>7%</td>
<td>9.7</td>
<td>71%</td>
</tr>
<tr>
<td>Previous Orchiectomy Only</td>
<td>15</td>
<td>14.1</td>
<td>15%</td>
<td>9.7</td>
<td>71%</td>
</tr>
<tr>
<td>No Prior Genital Surgery</td>
<td>27</td>
<td>9.7</td>
<td>71%</td>
<td>9.7</td>
<td>71%</td>
</tr>
</tbody>
</table>