Beyond the Blue Pill: Male Sexuality Following Cancer Treatments

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Many Men are Diagnosed with Prostate Cancer
Prostate Cancer

- Most common cancer in men
- Over 200,000 diagnosed yearly
- More common than breast cancer
  - 1 in 6 men develop prostate cancer (PC)
  - 1 in 8 women will develop breast cancer

American Cancer Society, Facts and Figures
Prostate Cancer

- 90% are diagnosed with early stage
- Excellent survival rates
  - 5-year survival rate 99%
  - 10-year survival rate 91%
  - 15-year survival rate 76%
- Men diagnosed at a younger age

American Cancer Society, Facts and Figures
Erectile Function Recovery After RP: Meta-Analysis

• **Selection criteria**
  – >18m post RP
  – > 50 subjects
  – Patient reported assessment

• **Yielded 22 studies (out of 212)**

• **EF recovery range in the studies: 25-78%**
  – No uniform definition of EF recovery
  – “A few times; sometimes; occasionally”

• **Meta analysis EF recovery rate:**
  – **56%**
  – Studies did not assess PDE5i use

Tal, Nelson, and Mulhall, JSM, 2009
Erectile Function Recovery After RP: Back to Baseline

Results: Back to Baseline

<table>
<thead>
<tr>
<th>Subjects</th>
<th>N</th>
<th>With PDE5i</th>
<th>No PDE5i</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>180</td>
<td>43%</td>
<td>22%</td>
</tr>
<tr>
<td>Baseline EFD ≥24</td>
<td>132</td>
<td>36%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Results: Baseline EFD ≥ 24 by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>With PDE5i</th>
<th>No PDE5i</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 60</td>
<td>81</td>
<td>48%</td>
<td>23%</td>
</tr>
<tr>
<td>≥ 60</td>
<td>51</td>
<td>16%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Nelson, Scardino, Eastham, and Mulhall, JSM, 2013
Sexual Dysfunction After Localized Treatment of Prostate Cancer

- Of 1,236 men 4.3 years after treatment
  - 44% had not been sexually active
- Sexual Dysfunction
  - 45% reported low sexual desire,
  - 85% rated that erectile dysfunction was a problem,
  - 65% reported problems with orgasm
    - 31% no longer tried
    - 17% unable
    - 28% reported weak orgasms
    - 37% had dry orgasms

Schover et al, Cancer, 2002
So What?
Impact of ED

- ED is associated with depression\(^1,2\)
- ED bother does not dissipate\(^3\)
  - Report lower general life happiness
  - No logical predictors
- Significant relationship difficulties\(^4\)

\(^1\) Araujo et al., Psychosom Med, 1998; \(^2\) Nelson et al., JSM, 2010; \(^3\) Nelson et al., JSM, 2010; \(^4\) Muller et al, 2002
### ED: Quality of Life

Laumann, JAMA, 281:1999

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Low physical satisfaction</th>
<th>Low emotional satisfaction</th>
<th>Low general happiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>No problems</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Premature ejaculation</td>
<td>0.79</td>
<td>0.97</td>
<td>1.28</td>
</tr>
<tr>
<td>ED</td>
<td>4.38</td>
<td>2.40</td>
<td>2.48</td>
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<tr>
<td>Low desire</td>
<td>3.14</td>
<td>1.57</td>
<td>2.61</td>
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</table>
ED Bother

- 183 men treated with RP
- Pre-op, 12m, and 24m
- ED Bother
  - ED a problem
  - Embarrassed or ashamed
  - Enjoyment of life
- ED and ED Bother were correlated (.46)
- Bother did not decrease over time
- No significant baseline predictors
  - Age, race, marital status, PSA, EF, sexual desire, sexual satisfaction

Nelson et al., JSM, 2010
Relationship Issues
Relationship Aspects

- Men with ED tend to withdraw from partner
- **Reduction in sexual contact** (Riley & Riley, 2000)
  - 123 couples with male partner reporting ED
    - 10% reported sexual contact within 4 weeks before treatment
    - Approximately 50% had not experienced any sexual contact for over 2½ years.
- **Reduction in intimacy** (Muller et al, 2002)
  - 105 German couples
  - Couples in ED group reported lower
    - Tenderness
    - Togetherness
Impact on the Female Partner

- Negative emotional response
- Female partners may
  - Feel unattractive or unskilled sexually (Masters et al., 1986)
  - 41% reported feeling responsible for partner’s ED (Riley & Riley, 2000)
  - Female partners of androgen deficient men reported
    - Increased loneliness
    - Loss of affection
    - Feeling “unwanted” (Dunning and Ward, 2004)
Performance Anxiety

- Anxiety/ED cycle
- Vicious cycle of failure and escalating anxiety
- Anxiety can increase for both partners in the relationship
  - Partner issues previously stated
- Can lead to behavioral and emotional changes
Important Survivorship Issue
We Can Help

- Effective ED Treatments
- Penile Rehabilitation Programs
  - Early intervention
  - Medication assisted erections 2 to 3 times/week

Mulhall et al., JSM, 2005; Montorsi et al, J Urol, 1997
Medical Treatments for Men

- Pills (i.e. Viagra, Levitra, Cialus)
- Penile Injection Therapy
- Vacuum Pumps
- Suppositories (MUSE)
- Prostheses
## Recovery of Erections after Prostatectomy

### Multivariate Analysis: Clinical and Pathological Factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>p value</th>
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<tbody>
<tr>
<td>Age</td>
<td>0.0008</td>
</tr>
<tr>
<td>Full potency preoperatively</td>
<td>0.0039</td>
</tr>
<tr>
<td>Nerve sparing status</td>
<td>0.0204</td>
</tr>
<tr>
<td>Pathological stage</td>
<td>0.1279</td>
</tr>
<tr>
<td>Tumor volume</td>
<td>0.1483</td>
</tr>
<tr>
<td>Preoperative PSA</td>
<td>0.3336</td>
</tr>
<tr>
<td>UICC stage</td>
<td>0.5605</td>
</tr>
<tr>
<td>Surgical margins</td>
<td>0.7534</td>
</tr>
</tbody>
</table>

From Stapleton and Scardino, 1996
Recovery of Erections According to Preoperative Sexual Functioning

Penile Rehabilitation
Prophylactic Therapy

- Prostatectomy patients – Penile injections 3 times/week for 12 weeks
- Assessed at 6 months postoperatively
- 15 in treatment group, 15 in placebo group
- 8/12 (67%) in treatment group had erections hard enough for sexual intercourse
- 3/15 (20%) in placebo group had erections hard enough for sexual intercourse
- Primary concept = improved oxygenation of penile tissue
- What other factors may play a role?

Prophylactic Therapy

• RP patients with functional erections pre-op
• Patient groups:
  - 58 in rehabilitation group
  - 74 in non-rehabilitation group
• Erectile rigidity $\geq 6$, 3 times a week
  - 12% responded to pills at 4 months
  - 29% responded to pills at 8 months
  - Non-responders moved to penile injections
• % of patients capable of having medication-unassisted intercourse at 18 months post RP:
  - 52% of rehabilitation group
  - 19% of non-rehabilitation group

Mullhall et al., JSM, 2005
Men Avoid and Drop-out of ED Treatment
Avoidance of ED Treatment

- 69% of men do not accept ED\(^1\)
- Median time to seek treatment is 2 years\(^2\)
- 50% of men with PC who would like treatment seek out treatment\(^3\)

\(^1\)de Boar et al., JSM, 2005; \(^2\)Salonia et al., JSM, 2008; \(^3\)Miles et al, Cochrane, 2008
Use of ED Treatment

• Many drop out of treatment
  – 50% of Viagra users\textsuperscript{1}
  – 50% of injection users\textsuperscript{2}

• Self-report injection use\textsuperscript{3}
  – 60% continue at 4 months
  – Only 33% at a rate suggested for rehabilitation

• Syringe count injection use\textsuperscript{4}
  – Mean injections/week: 1.1
  – Only 17% at a rate suggested for rehabilitation

\textsuperscript{1}\textit{IMS Health, 2001}; \textsuperscript{2}\textit{Sundaram et al., Urology, 1997};
\textsuperscript{3}\textit{Neleson et al., JSM, 2013}; \textsuperscript{4}\textit{Nelson et al, SMSNA, 2013}
Use of ED Treatments

• Men with prostate cancer\(^1\)
  – Only 38% found treatment “somewhat” to “very” helpful in improving their sex lives
  – Only 30% of the men still using treatment one year after starting\(^2\)

\(^1\)Schover, Cancer, 2002
How Do We Improve Compliance?
Phases

- **Phase I**: Qualitative study to help inform pilot intervention.

- **Phase II**: Pilot RCT of Acceptance and Commitment Therapy (ACT) to improve compliance with penile rehabilitation.
  - Aims: Feasibility and Efficacy
Qualitative Study

- Lack of appropriate education pre-treatment
  - Number one complaint
  - Discussed with significant frustration
  - First step to getting men into a survivorship program

Nelson et al., ISSM, 2012
Qualitative Study:
Cycle of Frustration and Avoidance

• Disappointment/shame related to ED
  – “I’m not a man”
• Fear/anxiety of entering into a sexual situation
  – Fear of not having a firm erection
  – “The whole process is humiliating”
• Avoidance of sexual situation
• Loss of valued life experience
• Increased frustration/distress/depression

Nelson et al., ISSM, 2012
Acceptance and Commitment Therapy

• Define important values
• Accept emotional pain or barriers to achieving valued activities
  – Acknowledge the distress
  – Willingness to experience the emotional pain
• Emotional processing of psychological distress
  – “Exposure” therapy
• Commitment
RCT: ACT-ED

- Coaching vs. Therapy
- Explore importance of sexuality
- Accept short-term anxiety for long-term goal
  - Listen to patients “predictions” about injections
  - Willingness to experience anxiety and frustration
- Defuse anxiety and frustration
  - Cognitive/emotional processing
  - Humor
  - Focus on physical sensations in sexual situation
- Discuss/highlight barriers
- Commitment
  - Set injection target
Pilot Intervention

• Randomized:
  – Injection Training + ACT-ED (N=30)
  – Injection Training + NP Phone Calls (N=30)

• ACT-ED lasts 4 months
  – 4 individual sessions (in person/phone, 30-45min)
  – 3 check-in phone calls (5-10min)

• NP Information Phone Call
  – Enhanced monitoring
  – 7 phone call on the same schedule as ACT-ED
# Subject Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Total Sample</th>
</tr>
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<tbody>
<tr>
<td><strong>N</strong></td>
<td>43</td>
</tr>
<tr>
<td><strong>N by Group</strong></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>21</td>
</tr>
<tr>
<td>Control</td>
<td>23</td>
</tr>
<tr>
<td><strong>Mean age (years)</strong></td>
<td>60±7</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82%</td>
</tr>
<tr>
<td>Black</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
<td></td>
</tr>
<tr>
<td>Partnered</td>
<td>73%</td>
</tr>
<tr>
<td>Single</td>
<td>37%</td>
</tr>
<tr>
<td><strong>EFD w/Injections</strong></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>24.5±6</td>
</tr>
<tr>
<td>Control</td>
<td>25.8±6</td>
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</table>
# Injection Use at 4 Months

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control</th>
<th>ACT-ED Intervention</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Weekly Injection Use</td>
<td>1.1</td>
<td>1.6</td>
<td>0.001</td>
</tr>
<tr>
<td>% Adherence</td>
<td>17%</td>
<td>45%</td>
<td>0.02</td>
</tr>
</tbody>
</table>
Secondary Outcomes

- ACT-ED group:
  - ↑ ED treatment satisfaction
  - ↑ Sexual self-esteem and confidence
  - ↓ ED bother
  - ↓ Prostate cancer treatment regret
Survivorship Program

• Pre-treatment education
• Appropriate ED treatment
• Support for Patients
  – Work with a mental health professional
  – Refer quickly
  – Describe as coaching vs. therapy
  – Usually brief intervention
Talking to Patients about Rehabilitation

- Educate
- Explore and focus on importance of sexuality
- Acknowledge short-term anxiety
  - Willingness to experience anxiety and frustration
- Focus on long-term goal as opposed to short-term anxiety
- Discuss/highlight barriers
  - Ask them what will get in the way of using treatment
  - Predict they will find excuses to avoid using treatment
- Commitment
  - Set injection target
Additional Information
For Patients

* Sexuality and Cancer
  © American Cancer Society
  1-800-ACS-2345 www.cancer.org

* Sexuality and Fertility After Cancer
  By Leslie Schover
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