COMPARATIVE TREND ANALYSIS OF THE OUTCOMES OF ROBOT-ASSISTED LAPAROSCOPIC PROSTATECTOMY (RALP) BEFORE AND AFTER THE 2012 USPSTF RECOMMENDATION AGAINST PSA SCREENING.

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Introduction:

• USPSTF recommended - against PSA- based screening- 2012

• Change in practice pattern of patients receiving RALP

• We evaluated the possible influence of these changes
  • Nerve sparing
  • Oncological outcomes
  • Functional outcomes
  • Trifecta
  • Pentafecta
Materials and method

- RALP between 2008 to 2018 with 12 months followup
- 8564 patients – excluding salvage prostatectomy
- Sub grouped till December 2012 (6 months after USPSTF recommendation) and afterwards based on nerve sparing.
Outcomes definitions

- **Potency** - ability to penetrate and satisfactorily complete the intercourse with or without PDE5 inhibitor usage.

- **Trifecta** - combination of continence, potency and absence of biochemical recurrence.

- **Pentafecta** outcomes is defined as trifecta along with absence of positive surgical margins and absence of post-operative complications.
Outcomes definitions

• Nerve sparing definitions :-
  “Grade 1 Nerve sparing” - ≥95% of overall NVB preservation.

  “Grade 2 Nerve Sparing” - ≥75% of overall NVB preservation.

  “Grade 3 Nerve Sparing” - ≥50% of overall NVB preservation.

  “Grade 4 Nerve Sparing” - <50% of overall NVB preservation.
CHANGES IN ONCOLOGICAL FEATURES:

- PSA increased from 6.0 to 7.4 ng/ml
- Increase in the positive slope of Gleason ≥4+4 and non-organ-confined disease (≥pT3)
Increase in trends for adverse pathology
How to demonstrate USPSTF statement’s impact?

Change in the intercept (same slope but different intercept)

Different slopes and intercepts
### Table: Continence and Potency

<table>
<thead>
<tr>
<th>Patient groups</th>
<th>Continence</th>
<th>Potency</th>
<th>BCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age less than 55, SHIM&gt;= 22 and D Amico class 1</td>
<td>354(98.9)</td>
<td>232(97.5)</td>
<td>.191</td>
</tr>
<tr>
<td>Age less than 55, SHIM&gt;= 22 and D Amico class 2</td>
<td>254(97.3)</td>
<td>260(96.3)</td>
<td>.504</td>
</tr>
<tr>
<td>Age less than 55, SHIM&gt;= 22 and D Amico class 3</td>
<td>54(96.4)</td>
<td>60(84.5)</td>
<td>.028</td>
</tr>
<tr>
<td>Age between 55-65 years, SHIM&gt;= 22 and D Amico class 1</td>
<td>409(95.6)</td>
<td>289(95.1)</td>
<td>.754</td>
</tr>
<tr>
<td>Age between 55-65 years, SHIM&gt;= 22 and D Amico class 2</td>
<td>341(96.6)</td>
<td>454(93.6)</td>
<td>.053</td>
</tr>
<tr>
<td>Age between 55-65 years, SHIM&gt;= 22 and D Amico class 3</td>
<td>102(93.6)</td>
<td>137(85.6)</td>
<td>.042</td>
</tr>
<tr>
<td>Age &gt; 65 years, SHIM&gt;= 22 and D Amico class 1</td>
<td>143(92.3)</td>
<td>82(82.8)</td>
<td>.021</td>
</tr>
<tr>
<td>Age &gt; 65 years, SHIM&gt;= 22 and D Amico class 2</td>
<td>132(92.3)</td>
<td>192(80.7)</td>
<td>.002</td>
</tr>
<tr>
<td>Age &gt; 65 years, SHIM&gt;= 22 and D Amico class 3</td>
<td>43(95.6)</td>
<td>107(78.7)</td>
<td>.009</td>
</tr>
</tbody>
</table>

*Did it affect all patients?*
Stage wise PSM

- Overall, the positive surgical margins (PSM) rate was 16.7%.

- Total PSM rate increased from 14.1% to 18.9% after the USPSTF recommendation (p<0.001)

- No significant change in Stage wise PSM after 2012.
  - \textless{}pT2 (p=.469)
  - pT3a (p=.948)
  - pT3b (p=.162)
  - pT4 (p=.446)
Conclusion:

- After the task force recommendation -
  - Worsening oncological features
  - Higher grade and stage of disease.
- Increased volume of disease
  - Less optimal candidates for Full NS
  - More candidates received Partial NS
Conclusion:

- Our adaptation to the oncologic changes has effected negatively the overall functional outcomes after surgery.

  Lesser optimal low risk candidates
  
  Full NS
  
  High quality outcomes
Thank You