INTRODUCTION

• The gold standard surgical treatment for moderate to severe BPH has been transurethral resection of the prostate (TURP).

• TURP has been associated with prolonged hospitalization and increased rates of complications.

• Greenlight PVP is an outpatient that has better perioperative safety, shorter hospitalization time, faster symptomatic improvement, and decreased morbidity compared to TURP.

METHODS

• A retrospective analysis was conducted of perioperative hospital costs of patients who underwent Greenlight PVP, TURP, or TURP with Olympus Power Button between 2013-2015 at the Toronto Western Hospital

• Two-hundred and two patients (corresponding to 203 visits) presenting with lower urinary tract syndromes (LUTS) due to benign prostate hyperplasia (BPH) who underwent treatment with either Greenlight PVP (n=56), TURP with Olympus Power Button (n=29), or TURP (n=118) were included in the analysis.

AIM

The objective of this study was to compare the costs of Greenlight PVP versus TURP, and TURP with Olympus Power Button from a hospital perspective.

RESULTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Greenlight PVP (n=56)</th>
<th>Olympus Power Button (n=29)</th>
<th>TURP (n=118)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>72 (10)</td>
<td>71 (9)</td>
<td>71 (8)</td>
</tr>
<tr>
<td>Patients on anti-coagulation therapy, N (%)</td>
<td>15 (27)</td>
<td>7 (24)</td>
<td>18 (15)</td>
</tr>
<tr>
<td>Patients with past medical therapy for BPH, N (%)</td>
<td>49 (88)</td>
<td>26 (90)</td>
<td>105 (89)</td>
</tr>
<tr>
<td>Prostate cancer, N (%)</td>
<td>5 (9)</td>
<td>0 (0)</td>
<td>8 (7)</td>
</tr>
<tr>
<td>Charlson Comorbidity index</td>
<td>0.88 (1.24)</td>
<td>0.93 (1.75)</td>
<td>0.95 (1.33)</td>
</tr>
<tr>
<td>No visits, N (%)</td>
<td>52 (93%)</td>
<td>4 (7%)</td>
<td>7 (6%)</td>
</tr>
<tr>
<td>Outpatient</td>
<td>29 (100%)</td>
<td>11 (37%)</td>
<td>11 (94%)</td>
</tr>
<tr>
<td>Distance to clinic, km</td>
<td>18.81 (27.87)</td>
<td>11.11 (10.23)</td>
<td>28.10 (12.73)</td>
</tr>
</tbody>
</table>

Table 1 – Patient Characteristics

Mean age and history of BPH treatment were similar in all groups.

• More men undergoing Greenlight PVP (27%) were on anti-coagulation therapy versus Olympus Power Button (24%) and TURP (15%).

• More men were treated on an outpatient basis with Greenlight PVP (93%) versus Olympus Power Button (0%) and TURP (6%).

Predictors of total costs (Based on a regression analysis)

• Type of procedure and Charlson Comorbidity Index were independent predictors of total costs (P<0.01).

• After adjusting for age, comorbidity and distance to clinic, Greenlight PVP was associated with a decrease in costs of $1,796 versus TURP.

• Olympus Power button was associated with a decrease in costs of $27 versus TURP.

• After adjustment for covariates, those with a Charlson Comorbidity Index of 2 or more had a $780 increase in costs.

CONCLUSIONS

• Greenlight PVP cost $1,758 less than Olympus Power Button, and $1,791 less than TURP.

• The savings in costs are mainly attributed to costly inpatient hospitalizations associated with TURP and the outpatient nature of Greenlight PVP.

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