Cost Savings Achieved through Introduction of Holmium Laser Enucleation of the Prostate (HOLEP)

Jacob Rust MS4
*USF MCOM- LVHN, Jacob.Rust@lvhn.org*

James Johannes MD
*Lehigh Valley Health Network, James_R.Johannes@lvhn.org*

Benjamin Croll MS4
*USF MCOM- LVHN, Benjamin.Croll@lvhn.org*

Rohan Shah MS4
Rohan.Shah@lvhn.org

Andrew Lai MD

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Cost Savings Achieved through Introduction of Holmium Laser Enucleation of the Prostate (HOLEP)

Jacob Rust MS4; James Johannes, MD; Benjamin J Croll, MS4; Rohan Shah, MS4; Andrew Lai, MD
Lehigh Valley Health Network, Allentown, Pennsylvania

Background

Benign Prostatic Hyperplasia (BPH)
• ↑incidence and prevalence worldwide
• 80% of men will experience BPH by their 8th decade of life
• ↑risk of mortality, depression, falls
• ↓health-related quality-of-life
• billions of $$$ in annual health expenditures
• When medical management fails, surgical treatment is warranted

Problem Statement

The objective of this study is to compare B TURP and same-day HOLEP with respect to LOS as a source of cost savings in a community hospital setting

Methods

• Retrospective cohort study
• First 25 HOLEP patients excluded to account for steep learning curve
• 75 consecutive patients from both HOLEP and B TURP providers
• HOLEP performed by a single surgeon vs B TURP performed by a separate single surgeon 11/2015-5/2018
• Both cohorts followed the same postoperative critical care pathway
• Mean LOS, operative time, preoperative prostate volume, postoperative change in IPSS, Qmax, PVR at 3 and 6 month intervals
  – Qmax values when PVR was <125ml were excluded

Results

Demographics:
• 150 participants
• 100% male

Discussion

• Both 3 and 6 month postoperative data support outcomes in current literature that HOLEP is at worst non inferior to B TURP
• Significantly shorter length of stay for HOLEP patients provides means to achieve lower cost of hospitalization for BPH surgical candidates
• HOLEP remains an initially expensive addition to Urology program
  – High startup costs, learning curve
• Equates the cost of open simple prostatectomy within 2 years of implementation, conservative management within 2.5 years
  – Significant cost reduction should be anticipated beyond these equivalence points
• Laser can be used in additional cases (thiropathy)
• BPH will continue to frequently require urologic care
• According to AUA and EUA guidelines, HOLEP is now established as a treatment for BPH, rather than an emerging technology
• HOLEP has proved to be effective in treating small and large prostates with minimal morbidity, better hemostasis, less blood loss, and better voiding pattern than B TURP
• The upcoming challenge is to optimize patient stratification, assessing which technique should be preferred based on patient characteristics

Conclusions

• HOLEP has the potential for cost savings by reducing the cost of hospitalization for patients undergoing surgical management of BPH
• Same day HOLEP does not sacrifice postoperative outcomes
• Future studies should include
  – Larger sample size
  – Extended follow up of patients beyond 3-6 months
  – More detailed cost analysis between modalities

REFERENCES