Surgical Management of BPH

Craig Robson, M.D.
Geriatric Symposium 2010
Open Prostatectomy
Minimally Invasive Procedures

- Transurethral Resection of Prostate (TURP)
- Transurethral Incision of Prostate (TUIP)
- Transurethral Microwave Therapy (TUMT)
- Transurethral Needle Ablation (TUNA)
- Transurethral Photoselective Vaporization (PVP)
Transurethral Resection of Prostate
Transurethral Needle Ablation
Transurethral Microwave Thermotherapy

T.U.M.T
Photoselective Vaporization of Prostate

During GreenLight Treatment

After GreenLight Treatment

P.V.P

Wednesday, March 31, 2010
Photoselective Vaporization of Prostate
Photoselective Vaporization of Prostate

GREENLIGHT Laser TURP
The Electromagnetic Spectrum

The Electromagnetic Spectrum overlayed with absorption coefficient

- **UV**: KrCl, XeCl
- **Visible**: Argon, GreenLight, Dye, O₂Hb, M, W, O₂Hb = Oxyhemoglobin, M = Melanin, W = Water
- **IR**: Alexandrite, Ho:YAG, Nd:YAG, Er:YAG, CO₂
KTP Laser Tissue Interaction

- Shallow penetration (0.8 mm)
- Fast heating of tissue
- Instant vaporization
- Tissue particles and vapor bubbles get released
KTP Laser Tissue Interaction

- Shallow penetration (0.8 mm)
- Fast heating of tissue
- Instant vaporization
- Tissue particles and vapor bubbles get released

Fiber

Tissue
KTP Laser Tissue Interaction

- Shallow penetration (0.8 mm)
- Fast heating of tissue
- Instant vaporization
- Tissue particles and vapor bubbles get released
PATIENT EVALUATION

- AUA SS
- QUALITY OF LIFE
- UROFLOW & PVR
- CYSTOSCOPY
## INTERNATIONAL PROSTATE SYMPTOM SCORE SHEET

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INCOMPLETE EMPTYING</td>
<td></td>
</tr>
<tr>
<td>2. FREQUENCY</td>
<td></td>
</tr>
<tr>
<td>3. INTERMITTENCY</td>
<td></td>
</tr>
<tr>
<td>4. URGENCY</td>
<td></td>
</tr>
<tr>
<td>5. WEAK STREAM</td>
<td></td>
</tr>
<tr>
<td>6. STRAINING</td>
<td></td>
</tr>
<tr>
<td>7. NOCTURIA</td>
<td></td>
</tr>
</tbody>
</table>

### Scoring System

- 0 = Never
- 1 = Almost always
- 2 = Always
- 3 = More than half the time
- 4 = Less than half the time
- 5 = Less than 1 time

### Calculating Total Score

Total prostate symptom score = sum of individual symptom scores.

### Quality of Life Due to Urinary Symptoms

If you were to spend the rest of your life with your urinary condition (as the way it is now), how would you feel about that? (tick one):

- 0 = Delighted
- 1 = Mostly satisfied
- 2 = Mostly dissatisfied
- 3 = Unhappy
- 4 = Terrible
SUMMARY:

Residual Urine: 139 cc/s

Chart Speed: 6.6 cm/min
Flow Time: 00:53 min:sec
Uro Vol: 163 ml
Peak Flow: 06 ml/sec
Peak Time: 00:04 min:sec
Avg Flow: 03 ml/sec
Total Time: 01:40 min:sec
CYSTOSCOPY
DR. EDWARD J. MUELLER, M.D.
4499 MEDICAL DRIVE, SUITE 251
SAN ANTONIO, TX 78229
PH 210.614.0222
LASER TURP SIDE EFFECTS/COMPLICATIONS

DATE:____________________
The following information was discussed with:____________________

Patient Acknowledgement:____________________

1. BLEEDING
2. PAIN FROM BLADDER SPASMS
3. INFECTION
4. IMPOTENCE
5. RETROGRADE EJACULATION/INFERTILITY. Expected/permanent.
6. INCONTINENCE
7. STRICTURE - URETHRA, BLADDER NECK
8. URETERAL INJURY
9. REGROWTH OF PROSTATE
10. POSSIBILITY OF UNDETECTABLE CANCER
AUA SYMPTOM SCORE

N = 220
3mos (n=152) 6mos (n=61)
QUALITY OF LIFE

N=220
3 mos n=152
6 mos n=61
PEAK FLOW RATE  ml/sec

N = 220

3mos (n=152)

6mos (n=61)
POST VOID RESIDUAL

N = 220

3mos (n = 152)

6mos (n = 61)
SUMMARY:

Residual Urine: 97 cc

Chart Speed: 6.6 cm/min
Flow Time: 00:26 min:sec
Uro Vol: 429 ml
Peak Flow: 45 ml/sec
Peak Time: 00:00 min:sec
Avg Flow: 16 ml/sec
Total Time: 00:34 min:sec
## COMPLICATIONS

<table>
<thead>
<tr>
<th>Complications</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prolonged Dysuria (mild – moderate) &gt;10 days</td>
<td>58</td>
<td>32%</td>
</tr>
<tr>
<td>Transient Hematuria --(mild-moderate) &gt;10 days,</td>
<td>81</td>
<td>45%</td>
</tr>
<tr>
<td>Transient urgency/frequency (range 10 day–6 months)</td>
<td>56</td>
<td>31%</td>
</tr>
<tr>
<td>Urinary retention requiring recatheterization (range 10 days-6 months)</td>
<td>13</td>
<td>7%</td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>13</td>
<td>7%</td>
</tr>
<tr>
<td>Bladder neck contracture</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Urethral stricture</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Epididymitis</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Retreatment</td>
<td>5</td>
<td>3%</td>
</tr>
</tbody>
</table>
You can't run with the Big Dogs...

if you pee like a Puppy