The New Normal after Bladder Removal and Urinary Diversion

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Tonight’s Discussion

- Diversion Options
- Decision Making
- Complications after Urinary Diversion
- Other Considerations
- Resources
Diversion Options

- Assess your personal situation
  - Medical history, lifestyle, desires, limitations, family support

- Other Considerations
  - Prior bowel surgery
  - Tumor factors
  - Patient factors

- Continent vs Incontinent
  - Orthotopic neobladder
  - Continent cutaneous diversion (Indiana Pouch)
  - Conduit (stoma)
    - Small intestine vs colon
Urinary Diversion

Patient Concerns: Treatment Effects

- Body Image
- Sexuality
- Urinary Function
- Impact of Treatment on Family Members
- Practicality of Undergoing Radical Therapy
## Consequences of Urinary Diversion

<table>
<thead>
<tr>
<th>Complications</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sepsis</td>
<td>3%</td>
</tr>
<tr>
<td>Kidney infection</td>
<td>11-18%</td>
</tr>
<tr>
<td>Intestinal obstruction</td>
<td>2-10%</td>
</tr>
<tr>
<td>Parastomal hernia</td>
<td>2-16%</td>
</tr>
<tr>
<td>Stomal stenosis</td>
<td>2-7%</td>
</tr>
<tr>
<td>Stone formation</td>
<td>7-11%</td>
</tr>
<tr>
<td>Metabolic acidosis</td>
<td>13-27%</td>
</tr>
<tr>
<td>Conduit stenosis</td>
<td>3%</td>
</tr>
<tr>
<td>Conduit-enteric fistula</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Ureteral obstruction</td>
<td>6-17%</td>
</tr>
</tbody>
</table>

*Slide, courtesy Scott Gilbert, MD*
Stomal Complications

- Stomal Necrosis (poor blood supply to the stoma)
- Retraction (stoma shrinks back)
- Obstruction (stoma blocks off)
- Parastomal Hernias
- Stenosis (stoma scars down)
- Prolapse (conduit falls out from the stoma)

Skin Changes

Trauma / Skin Ulceration

Fungal Infection

Allergic Dermatitis

Ischemia / Necrosis

Impact of Diversion on Social Interaction
Scale 0-4

Wheat, et al, NCS, 2010
90-Day Complication Rates after Orthotopic Neobladder (n=1,013)

- 587 (58%) had a complication
- Infectious – 24%
- Urinary system – 17%
- Gastrointestinal – 15%
- Wound related – 9%
- Deaths - 23 (2%)

Orthotopic Neobladder: Overall Functional Outcomes

- Overall rates described (majority men)\textsuperscript{1-3}
  - Daytime continence 87-96%
  - Nighttime continence 72-95%
- Rates among women less studied, but show worse continence rates overall\textsuperscript{4}
  - Daytime continence 43-90%
  - Nighttime continence 55-76%
  - Hypercontinence (retention) 24-58%

\textsuperscript{1}Stein, JU 2004; 172:584-587. \textsuperscript{2}Hautmann, WJU 2006;24:305-314.\textsuperscript{3}Neuzillet, BJUI 2011;108:596-602. \textsuperscript{4}Todenhofer, Curr Opin Urol 2013;23. Courtesy, Dr. Angela Smith
Continent Cutaneous Diversion

- Early complication rate <20%
  - ureteral leakage
  - pouch necrosis / perforation
  - ureteral stricture
  - pyelonephritis

- Late complication rate 28%
  - stomal stenosis 4-36%
  - stone development 5-10%
  - ureteral stricture 2.4 – 5%
    - higher in radiated pts (11-42%)

- Early reoperation rate ~2.5%
- Late reoperation rate 15%
- Incontinence
  - 1 year day / nighttime
  - 85 – 98%

Urinary Symptoms

Percent of respondents reporting “Quite a bit/Very much”

Slide, courtesy David Latini
Sexual Symptoms

Better Fx

van der Aa et al, 2009 – 23% concerned about contaminating partner

* p < .05, ** p < .01

* * p < .05, ** p < .01
Psychological Distress

More distress/life disruption

* p < .05, ** p < .01

Slide, courtesy David Latini
# Patient Selection

<table>
<thead>
<tr>
<th>Considerations</th>
<th>Conduit</th>
<th>Continent Cutaneous</th>
<th>Orthotopic Diversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognition</td>
<td>Good</td>
<td>High / Motivated</td>
<td>High / Motivated</td>
</tr>
<tr>
<td>Continence before surgery</td>
<td>n/a</td>
<td>n/a</td>
<td>Excellent</td>
</tr>
<tr>
<td>Native bowel function</td>
<td>n/a</td>
<td>≥ Very Good</td>
<td>≥ Very Good</td>
</tr>
<tr>
<td>Tumor at bladder neck or urethra</td>
<td>n/a</td>
<td>n/a</td>
<td>Suboptimal Candidate</td>
</tr>
<tr>
<td>Renal function</td>
<td></td>
<td>Creatinine &gt; 2.0 mg/dl</td>
<td>Creatinine &gt; 2.0 mg/dl</td>
</tr>
<tr>
<td>Manual dexterity</td>
<td>Good</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>Able to catheterize</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Limited ability to care for oneself</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Special considerations: elderly, locally advanced / node + / prior radiation
BCAN : Resources

The Bladder Cancer Advocacy Network presents...

Tips From Patients, For Patients: Ileal Conduit

Bladder Cancer Handbook for Newly Diagnosed

Patient Tips:
- Cystoscopy
- Radical Cystectomy
- TURBT
- Ileal Conduit
- BCG
- Neobladder

After radical cystectomy to remove the bladder, the surgeon creates a new way for urine to leave the body. This new system is called a urinary diversion. An ileal conduit is the easiest and most common urinary diversion performed by urologists. The surgeon creates a small opening in the abdomen called a stoma, or mouth. The surgeon then takes a short segment of the small intestine (that has been removed from the rest of the intestine) and connects one end to the stoma. The ureters, which normally carry urine from the kidneys to the bladder, are attached to the other end of the segment of intestine.
Vietnam Veterans with Bladder Cancer
By jfbruce · Posted March 1, 2013
Discussion in Bladder Cancer Advocacy Network · 336 replies
Most all VA Claims for Bladder cancer are tied to the veterans exposure to Agent Orange. If you filed a claim you have been denied because it is not on the Agent Orange "presumptive list". When the military ...

bladder cancer
By watch · Posted November 1, 2013
Discussion in Bladder Cancer Advocacy Network · 15 replies

Groups
- Bladder Cancer Advocacy Network
- Bladder Diseases
- Lung Cancer Survivors
- Ostomy
Support / Resources

Cancer Support Community

New Name...Same Mission.

Because no one should face cancer alone

Caring4Cancer

Caregivers
Solidifying relationships and offering care during stressful times

Also in this issue:
- Early Detection
- Common tests used during treatment
- Medical Insurance
- Avoiding the pitfalls in your coverage
- Stay in Control
- Dealing with chronic conditions and cancer

Contact us for more information.

www.Caring4Cancer.com