Genitourinary Grossing Guidelines

Specimen Type: CYSTOPROSTATECTOMY

Comment: The non-serosal surface of the bladder and the prostate should be inked (black - right; blue – left; yellow - anterior midline; red – posterior midline). Then, a Y-shaped incision should be made anteriorly from the dome of the bladder to just above the prostate. The bladder is inspected and photographed (fresh) if an interesting lesion is present. If sufficient amount of lesion is present, then the tissue procurement team should be contacted. After procurement (or if there is no mass lesion present), the specimen should be fixed in formalin overnight .The urinary bladder and prostate should be processed at the same time.

Procedure:

1. Note overall dimensions of specimen, including bladder, prostate, seminal vesicles, and ureters.
2. Take ureteral and urethral resection margins (ureteral margins are often closed with clamps).
3. Ink the surgical margins of bladder, prostate, and seminal vesicles:
    a. left-blue
    b. right-black
    c. anterior stripe- yellow
    d. posterior stripe- red
    e. Do not ink the serosa that covers the bladder at the superior-posterior aspect.
4. Open the bladder with Y-shaped incision, anteriorly:
    a. Do not touch mucosal surfaces until well fixed, as the mucosa is easily denuded.
    b. Look up the location of tumor in the patient's chart to avoid cutting through the tumor;
    c. Open ureters with scissors and inspect the ureteral mucosal surface.
5. Amputate the prostate from the bladder neck.
    a. Make sure you have checked for gross tumor involvement of the prostate before removing it from the bladder.
6. Slice prostate from base to apex perpendicular to the posterior surface and describe any abnormalities.
7. Photograph the specimen.
8. Describe tumor: location, size, number, demarcation, characteristics (papillary/flat/nodular/ulcerated), extent of invasion, distance from inked deep margin, distance from ureteral orifice, invasion of prostate.
9. Describe mucosa away from tumor.
10. Look for lymph nodes in perivesical fat.

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Gross Template:

MMODAL Command: "INSERT PROSTATE AND BLADDER"

It consists of an [*intact/disrupted/previously incised****] cystoprostatectomy measuring [*measure in three dimensions****] cm in greatest overall dimensions. The bladder measures [*measure in three dimensions****] cm. The right ureter measures [***] cm in length x [***] cm in diameter. The left ureter measures [***] cm in length x [***] cm in diameter.

The bladder is opened along the anterior aspect to reveal a [*** *x* ***] cm [*mass- (papillary, solid, flat), ulcer, area of fibrosis****] located in the [*trigone, dome, right/left lateral wall, anterior wall****]. The lesion [*involves/ does not involve****] the [*right and/or left****] ureteral orifices [*describe if ureteral orifices are patent or obstructed in relation to the mass****]. Sectioning reveals the lesion to have a [*describe cut surface-hemorrhage, necrosis****] cut surface and a [***] cm maximum thickness. The lesion [*is grossly superficial, extends into the bladder wall, extends into the perivesical fat, extends through bladder neck into the prostatic parenchyma****].The lesion measures [***] cm from the inked soft tissue margin, [***] cm from the left ureter margin, [***] cm from the right ureter margin, and [***] cm from the urethral margin. The remaining bladder mucosa is [*unremarkable, edematous****].

The amputated prostate weighs [*weight****] grams (to exclude bilateral adnexa). The prostate measures [***] cm (lateral left - lateral right) x [***] cm (apex - base) x [***] cm (anterior - posterior). The external surface is smooth and grossly intact with focal areas of cautery artifact at the bladder neck margin. The grossly unremarkable bilateral seminal vesicles and vasa deferentia weigh [*weight****] gm in aggregate. The right seminal vesicle measures [*measure in three dimensions****] cm and the left seminal vesicle measures [*measure in three dimensions****] cm. The bilateral vasa deferentia are grossly unremarkable. The right vas deferens measures [***] cm in length x [***] cm in diameter and the left vas deferens measures [***] cm in length x [***] cm in diameter.

The prostate is serially sectioned from base - apex into [***] transverse levels to reveal [*diffuse periurethral nodularity, prominent nodules, fibrosis, lesion****]. [*Number****] lymph nodes are identified [*if present, give range in size****]. Gross photographs are taken. All identified lymph nodes are submitted and representative sections of the remaining specimen are submitted.

INK KEY:

Black	Right
Blue	Left
Yellow	Anterior midline
Red	Posterior midline

[*insert cassette summary****]

Cassette Submission: 20-25 cassettes

- Ureteral resection margins (en face)
- Urethral resection margin (en face)
- Tumor
    - 2 sections of tumor with deep margin at area of deepest invasion
    - 2 sections of tumor with adjacent uninvolved mucosa
    - 1 section with nearest ureteral orifice, if applicable
    - 2 sections of tumor with prostate, if involved
- One representative section each of uninvolved mucosa
    - Anterior wall

  - Posterior wall
  - Trigone
  - Dome
  - Left lateral wall
  - Right lateral wall
  - Longitudinal section of each ureteral orifice

  ** Submit any erythematous mucosa separate from the tumor
  ** Some of these areas may have been sampled in relation to tumor. If you have done so, please do not over submit normal sections

- All lymph nodes (perivesical lymph nodes occasionally are present)
- Prostate
  - Apical margin (perpendicular sections)
  - Bladder neck area (not true margin)
  - 4 cassettes of posterior quadrants (level 2 + level 4)
  - 2 cassettes of anterior quadrants (level 3)
  - Include sections to contain prostatic urethra
  - Include section to contain seminal vesicles (right and left)

  * Note that vas deferens margins ARE NOT required. Generally, only high grade prostate cancer would involve vas margins. If grossly suspicious however, please submit these margins.

- **Note:** If other adjacent organs, such as rectum, are present, submit sections showing relationship of tumor to these structures. Otherwise, one to two representative sections of these structures is enough.