

THE UROLOGY GROUP

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CANCER OF THE URETER/RENAL PELVIS

WHAT IS THE URINARY COLLECTING SYSTEM?

Once urine is made by the kidneys, it collects in a part of the kidney called the **renal pelvis**. It then passes down the **ureter** or kidney tube, into the bladder and then out of the body through the **urethra**. The lining of the urinary system is made up of specialized cells called **transitional cells**. These cells are designed to pass urine without absorbing toxins from the urine. When these cells become cancerous, it is called **transitional cell carcinoma**.

WHAT ARE RISK FACTORS FOR CANCER OF THE URETER/RENAL PELVIS?

Risk factors for transitional cell carcinoma include history of bladder cancer, male gender, **smoking** (7 times increased risk), kidney disease called Balkan nephropathy, long standing use of pain medicines (acetaminophen, ibuprofen), occupational exposures (aniline dyes, coal and tar), chronic irritation from infection or stones, chemotherapy with cyclophosphamide, and use of contaminated Chinese herbs and family history (eg Lynch Syndrome II).

WHAT ARE SYMPTOMS OF CANCER OF THE URETER/RENAL PELVIS?

Blood in the urine, either microscopic or seen with the naked eye, is the most common symptom. Back or flank pain or kidney infection may also be symptoms.

HOW IS CANCER OF THE URETER/RENAL PELVIS DIAGNOSED?

Evaluation of the collecting system usually involves urine studies, blood work, imaging such as CT scan with intravenous contrast and **cystoscopy**, an office procedure to look in the bladder. Evaluating the ureter and renal pelvis may include surgery called **ureteroscopy** to look in the collecting system. If suspicious areas are seen, biopsies may be taken and a plastic tube called a **stent** left in place to let the kidney drain while the biopsy site heals. The stent is typically left in place for about a week then removed during an office cystoscopy.

HOW IS CANCER OF THE URETER/RENAL PELVIS TREATED?

If transitional cell carcinoma is diagnosed in the collecting system, surgery is often indicated. This may involve removal of the affected kidney, ureter and portion of the bladder. If the affected area is short and the cancer is not too aggressive, sometimes just a part of the ureter

can be removed. Follow up will be necessary for years to make sure cancer does not appear in the rest of the urinary system.

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