Renal Cell Cancer (Kidney Cancer)

Renal cell cancer is a disease in which cancer cells form in the linings of tubules of the kidney. A cancer is an uncontrolled growth of cells and can occur anywhere in the body. Your kidneys are the organs which filter your blood and keep it clean by getting rid of waste products from your body in your urine. Urine passes from the kidneys into the bladder through long tubes called ureters. The bladder stores the urine until it is passed from the body through the tube which drains the bladder to the outside (*urethra*).

SYMPTOMS

Early in the disease there may be no problems but as the disease worsens some of the problems seen are:

- Blood in the urine.
- Belly (*abdominal*) pain.
- Decreased red blood cells (*anemia*).
- A swelling in the belly.
- Loss of appetite and weight loss.
- Fever from unknown causes.

RISKS FOR KIDNEY CANCER INCLUDE:

- Smoking and overuse of some pain medications.
- Having certain problems inherited from your parents or grandparents (*genetic conditions*), such as von Hippel-Lindau disease or hereditary papillary renal cell carcinoma.

DIAGNOSIS

- Your caregiver will do a physical exam. This means they check you over.
- Laboratory work may show problems (*abnormalities*) in the urine.
- Plain x-rays and some specialized x-rays may be done. Some of these may include a CT scan. Sometimes an IVP (*intravenous pyelogram*) is done. In this test a dye is injected into a vein and pictures are then taken of the kidneys. The dye travels to the inside of the kidneys, ureters and bladder. Let your caregivers know if you are allergic to iodine or have had a past reaction to dyes used in x-rays. Other specialized x-rays sometimes taken are the MRI (*magnetic resonance imaging*) and PET scan (*positron emission technology*).
- Angiography is sometimes done in which a dye is put into an artery leading to the kidney so the vessels surrounding the tumor or growth can be studied.
- Your caregiver will explain the value of the various testing to you and why it is necessary and helpful.

If some of the above tests show a tumor or growth, sometimes a needle biopsy is done to confirm this and find out what the growth is made of. A fine needle aspiration (FNA) is used to remove a sliver of tissue from the kidney. This is done by sticking a needle through your skin and into the kidney. A specialist in looking at cells under the microscope (*pathologist*) then looks at the biopsy to determine what is wrong. The pathologist will check for cancer cells. Usually the previous tests mentioned have already given your surgeon enough information to know if an operation is needed.

TREATMENT

You will want to discuss treatment choices with your caregivers and see what the best treatment for you is. This will depend on various factors including your age, other health problems and what stage your disease is in. All of this will play a part in your outcome. Some of the treatment choices are:

- Surgery is the main treatment and chances of surviving without this are uncommon. Usually the entire kidney is removed if this is possible. This is called a radical nephrectomy. The surgeon removes your kidney, the small gland on top of the kidney (*adrenal gland*) and the fat surrounding the kidney. You have another adrenal gland on the other side so removing one is not a problem. Sometimes a partial nephrectomy is done in people with one kidney or people with cancer on both sides. This may help to avoid use of an artificial kidney (*dialysis*) as only part of a kidney is needed to filter your blood.
- Arterial embolization is another treatment. With this treatment a small catheter is threaded from your groin up into your kidney and material is injected into the artery supplying the tumor in the kidney. Without blood supply, the tumor dies off. Sometimes this procedure is used before kidney removal to cut down on blood

loss.

- Radiation therapy or x-ray therapy can be used if your health is poor and will not allow surgery. Some of the problems with radiation include fatigue, nausea, vomiting, and damage to skin and surrounding tissues.
- Chemotherapy may be used. This is a treatment which uses cancer killing medications to fight the cancer. The side effects depend on the medications used. Some side effects may include nausea, vomiting, loss of weight, loss of appetite, hair loss and other problems. Your caregiver can usually give you medications to overcome most of the problems.
- There are many other forms of treatment your caregivers can discuss with you. Together you can determine which treatment will be best for you.
- The more you know when dealing with these problems, the more comfortable you will be. Talk over your treatment over with your loved ones. Get a second opinion if you feel it will be of help. Often your surgeon and other caregivers may recommend this for your own comfort or peace of mind.

RISKS OF SURGERY ARE:

- Infection.
- Damage to other organs.
- Kidney failure (dialysis would then be needed, this is use of an artificial kidney).
- Blood loss.
- Collapse of a lung (*pneumothorax*).
- Worsening of health problems that were present before surgery.

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