

Overview

Upper tract tumors develop in tissue in the kidneys that collects urine (i.e., the renal pelvis) and the tubes that carry urine from the kidneys to the bladder (ureters). Cancer that originates in the upper urinary tract accounts for less than 1% of cancers of the reproductive and urinary systems (genitourinary tract). Upper tract tumors are often associated with bladder cancer.

Types

More than 90% of renal pelvis tumors develop in surface lining cells (transitional epithelial cells). This type is called **transitional cell carcinoma** (TCC). TCC often develops in multiple areas of the upper urinary tract.

Fewer than 10% of renal pelvis tumors are squamous cell carcinomas, which develop in flat surface cells that line the renal pelvis. Adenocarcinoma, which develops in glandular cells, is extremely rare. These types of renal pelvis tumors are associated with inflammation caused by chronic urinary tract infections and kidney stones.

In industrialized countries (e.g., United States, Canada, France), more than 90% of cases originate in the transitional epithelial cells (called **transitional cell carcinoma**; TCC). In developing countries, 75% of cases are squamous cell carcinomas caused by *Schistosoma haematobium* (parasitic organism) infection. Rare types of bladder cancer include small cell carcinoma, carcinosarcoma, primary lymphoma, and sarcoma.

Incidence and Prevalence

According to the American Cancer Society, incidence of upper tract tumors is about 1-2 cases per 100,000 people each year. Renal pelvis tumors are more common in men and in Caucasians. Peak incidence occurs in the 60- to 70-year age group. The highest incidence is in Balkan countries such as Bulgaria, Greece, Yugoslavia, and Romania.

Upper tract tumors occurring on both sides (bilateral) account for less than 2% of cases.