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Smoking significantly **increases** individuals' risk of developing serious **forms of urothelial carcinoma** and a higher likelihood of dying from the disease, particularly for **women**. That is the conclusion of a recent study published in *BJU International*. While the biological mechanisms underlying this gender difference are unknown, the findings indicate that clinicians and society in general should focus on smoking prevention and cessation to safeguard against deadly cancers of the bladder, ureters, and renal pelvis, especially in females.

To evaluate the gender-specific effects of smoking habits and cumulative smoking exposure on the health of patients with urothelial carcinoma, investigators led by Shahrokh Shariat, MD, of the Weill Medical College of

Cornell University and New York-Presbyterian Hospital in New York City, studied 864 patients (553 men and 311 women) from five international institutions who underwent surgery to treat urothelial carcinoma.

Cancer was more likely to recur in female current smokers than in male current smokers. In heavy long-term smokers, women were 70 percent more

likely to experience a cancer recurrence and twice as likely to die from cancer than men. In female patients only, smoking quantity, duration, and cumulative exposure were linked with cancer recurrence and death. For both men and women, those who stopped smoking for more than 10 years saw their risk of dying from cancer revert to that of non-smokers.

“The biological and clinical effect of smoking seems to be different in females than in males. More effort needs to be spent on the science of how normal human biology differs between men and women and how the diagnosis and treatment of urothelial carcinoma differs as a function of gender,” said Dr. Shariat. “Also, gender-specific smoking prevention and cessation can have a major health care impact in urothelial carcinoma.”