

BLADDER CANCER

INTRODUCTION

Bladder cancer is one of the most common urological malignancies. It is the fourth most common cancer in men and eighth most common malignancy in women of the western world. As per the Indian cancer registry, Bladder cancer constitutes the ninth most common malignancy and accounts for an overall 3.9% of all cancer cases. It is seen more in men than the women. It is rarely seen in people below the age of 40 and affects the elderly more.

RISK FACTORS

- ❖ **Smoking-** Tobacco smoking is the main known contributor to urinary bladder cancer and nearly half of all the cases are due to it. When you smoke, your body processes the chemicals in the smoke and excretes some of them in your urine. These harmful chemicals may damage the lining of your bladder, increasing the risk of cancer. Smokers are at least 3 times as likely to get bladder cancer as nonsmokers.
- ❖ **Workplace exposures-** Certain industrial chemicals have been linked with bladder cancer. Chemicals called *aromatic amines*, such as benzidine and beta-naphthylamine, which are sometimes used in the dye industry, can cause bladder cancer. Industries carrying higher risks include makers of rubber, leather, textiles, and paint products as well as printing companies. Other workers with an increased risk of developing bladder cancer include painters, machinists, printers, and truck drivers (likely because of exposure to diesel fumes).
- ❖ **Chronic bladder inflammation (Cystitis) & Infections (Schistosomiasis)**
- ❖ **Others-** increasing age, males (more common)

Can Bladder Cancer Be Detected Early?

Screening for bladder cancer can be done in **very high risk** patients, such as:

- Previous history of bladder cancer.
- People exposed to certain chemicals in the above mentioned factories.

Tests recommended in these patients are –

- **Urinalysis** for occult blood.
- **Urine Cytology** for malignant cells.

If urine is positive for occult blood (or) urine cytology is positive for malignant cells, consult cancer specialist immediately.

When to suspect bladder cancer ?

- ❖ **Blood in urine (Haematuria)**
- ❖ **Tissue pieces/ blood clots in urine.**

Blood in the urine does not always mean you have bladder cancer. More often it is caused by other things like an infection, benign (non-cancerous) tumors, stones in the kidney or bladder, or other benign kidney diseases.

Confirm the diagnosis of bladder cancer

- ❖ **TURBT** – (Transurethral Resection of Bladder Tumor)
This is a histopathological diagnostic procedure. Comment on the muscle invasion is very important to make a clinical decision.

TREATMENT MODALITIES

Depending on the stage of the cancer and other factors, treatment options for people with bladder cancer can include:

- ❖ **Surgery**
Radical cystectomy - Removal of the entire bladder, nearby lymph nodes (lymphadenectomy), part of the urethra, and nearby organs that may contain cancer cells. Bladder is reconstructed with procedures such as **Ileal Conduit**, **Kochs pouch**, **Continent cutaneous reservoir** & **Orthotopic Neobladder**.
Partial or segmental **cystectomy** is also done if indicated.

❖ **Radiation therapy**

Radical radiotherapy along with concurrent chemotherapy is also a choice of treatment. Various radiotherapy techniques that can be used are 3DCRT, IMRT, & IGRT to save the normal tissues.

❖ **Intravesical BCG instillation**

Bacillus Calmette-Guerin (BCG) is the intravesical immunotherapy for treating early-stage bladder cancer. Treatment is given after a TURBT once a week for 6 weeks.

Tips for Prevention

- ✓ **Don't smoke.**
- ✓ **Consult periodically with a cancer specialist if you are working in a chemical factory.**
- ✓ **Add a variety of fruits and vegetables in your diet.**
- ✓ **Drink plenty of liquids.**