The bladder is a hollow organ in the lower part of the abdomen. It is shaped like a small balloon and has a muscular wall that allows it to get larger or smaller. The bladder stores urine until it is passed out of the body. Urine is the liquid waste that is made by the kidneys when they clean the blood. The urine passes from the two kidneys into the bladder through two tubes called ureters. When the bladder is emptied during urination, the urine goes from the bladder to the outside of the body through another tube called the urethra. Early bladder cancer is also called superficial bladder cancer or non muscle invasive bladder cancer. This means that the cancer cells are only in the inner lining of the bladder. There are 3 stages of early bladder cancer:

1. Stage Tis (also called CIS or carcinoma in situ)
2. Stage Ta
3. Stage T1

Ta and T1 tumors are also called papillary bladder cancer. In Tis (CIS or carcinoma in situ) the cancer cells are still only in the bladder lining of the bladder, but are in flat sheets that look a bit like moss. Carcinoma in situ can occur in patches throughout the bladder lining and the cells are very abnormal. CIS is called a high risk, early bladder cancer because if it is not treated it is very likely to spread into the deeper layers of the bladder. Initial treatment of bladder cancer is based on the tumor’s clinical stage, which is how deep it has grown into the bladder wall and whether it has spread beyond the bladder. Other factors, such as the size and grade of the tumor, may also affect treatment options. All of these are based on the results of exams, cystoscopy, and imaging tests. Chemotherapy treatment for bladder cancer usually involves two or more chemotherapy drugs used in combination. Chemotherapy may be used to kill cancer cells that might remain after surgery. It may also be used before surgery. In this case, chemotherapy may shrink a tumor enough to allow the surgeon to perform a less invasive surgery. Chemotherapy is sometimes combined with radiation therapy. Radiation therapy is used infrequently in people with bladder cancer. Aggressive forms of bladder cancer involve the protein PODXL -- a discovery that could hold the key to improved treatment, according to researchers at Lund University, Uppsala University and KTH in Sweden. With better knowledge of this protein, we can better determine a patient’s prognosis and see who needs more aggressive treatment immediately and who can be given a milder treatment without a risk to their life. The patients with tumors containing the protein podocalyxin-like, PODXL, had an increased risk of a cancer recurrence or of dying of the disease within two years -- even in cases that were discovered early and only had superficial tumors. The researchers believe that the new findings about this protein could also be of use for other forms of cancer.

REFERENCES