

# Penile Cancer: Staging and Treatment

#### What is staging for cancer?

Staging is the process of learning how much cancer is in your body and where it is. For penile cancer, tests like ultrasound, biopsy, CT scan, and MRI may be used to help stage your cancer. Blood tests, like a complete blood count (CBC), may also be done to help stage your cancer. A cystoscopy may be done, where a tiny camera (scope) is inserted through the opening of the penis and into the bladder to look for the spread of cancer to the urethra (tube connecting the bladder to the penis) and/or the bladder. Your providers need to know about your cancer and your health so that they can plan the best treatment for you.

Staging looks at the size of the tumor and where it is, and if it has spread to other organs. The staging system for penile cancer is called the "TNM system," as described by the American Joint Committee on Cancer. Staging is based 3 things:

- T-describes the size/location/extent of the "primary" tumor in or on the penis.
- **N**-describes if the cancer has spread to the lymph nodes.
- **M**-describes if the cancer has spread to other organs (metastases).

Your healthcare provider will use the results of the tests you had to determine your TNM result to get a stage from 0 to IV. Grade, or how well the tumor cells are organized, is also used in making treatment decisions but is not included in the official "TNM" staging system.

## How is penile cancer staged?

Staging of penile cancer is based on:

- The size of the tumor or how invasive it is (how deep the tumor goes into the skin).
- If the cancer has spread to the lymph nodes, and if it has, how many lymph nodes are affected.
- If the cancer has spread to other organs. This is called metastasis.

The staging systems are very complex. Below is a summary. Talk to your provider about the stage of your cancer.

**Stage Ois (Tis, NO, MO):** Called "carcinoma in situ" (CIS). The tumor is only in the top layer of the skin and has not grown any deeper (Tis or Ta). The cancer has not spread to nearby lymph nodes (NO) or to distant parts of the body (MO).

**Stage 0a (Ta, N0, M0):** Called "noninvasive localized squamous cell carcinoma." The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0).

**Stage I (T1a, N0, M0):** The tumor has grown just below the top layer of skin. It hasn't grown into nearby blood or lymph vessels, or nerves, and it's not high grade (grade 3) (T1a). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0).

**Stage IIA (T1b, N0, M0):** The tumor has grown just below the top layer of skin. It has grown into nearby blood or lymph vessels, or nerves, and/or it's high grade (grade 3) (T1b). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0); **OR (T2, N0, M0):** The cancer has grown into the corpus spongiosum (spongy tissue that runs along the bottom and into the head of the penis). The cancer has not

spread to nearby lymph nodes (N0) or to distant parts of the body (M0).

**Stage IIB (T3, N0, M0):** The cancer has grown into the corpus cavernosum (two chambers that run along the top of the shaft of the penis and fill with blood during an erection). The cancer has not spread to nearby lymph nodes (N0) or to distant parts of the body (M0).

**Stage IIIA (T1-3, N1, M0):** The tumor has grown below the top layer of skin and may have grown into the corpus spongiosum and/or the corpus cavernosum (T1 to T3). The cancer has spread to 1 or 2 nearby inguinal (groin) lymph nodes on the same side of the body (N1). It has not spread to distant parts of the body (M0).

**Stage IIIB (T1-3, N2, M0):** The tumor has grown below the top layer of skin and may have grown into the corpus spongiosum and/or the corpus cavernosum (T1 to T3). The cancer has spread to 3 or more nearby inguinal (groin) lymph nodes on the same side of the body, or to inguinal lymph nodes on both sides of the body (N2). It has not spread to distant parts of the body (M0).

**Stage IV (T4, Any N, M0):** The tumor has grown into nearby areas such as the scrotum, prostate, or pubic bone (T4). The cancer may have spread to nearby lymph nodes (any N). It has not spread to distant parts of the body (M0); **OR (Any T, N3, M0):** The tumor may have grown into deeper layers of the penis or nearby structures (any T). The cancer has spread to nearby lymph nodes in the pelvis, or it has grown outside of a lymph node and into the nearby tissue (N3). The cancer has not spread to distant parts of the body (M0); **OR (Any T, Any N, M1):** The tumor may have grown into deeper layers of the penis or nearby areas (any T). The cancer may have spread to nearby lymph nodes (any N). The cancer has spread to distant parts of the body (M1).

#### How is penile cancer treated?

Treatment for penile cancer depends on many factors, like your cancer stage, age, overall health, and testing results. Your treatment may include:

- Surgery.
- · Radiation Therapy.
- Other treatments.
- Chemotherapy.
- · Clinical Trials.

#### Surgery

Surgery is the most common treatment for all stages of penile cancer. The surgery you have depends on the size and location of your tumor. The most common procedures used for penile cancer are:

- Mohs Microsurgery.
- Circumcision: Part or all of the foreskin is removed.
- Wide Local Excision: All of the cancer and some normal tissue is removed.
- Amputation: Removal of the penis. Can be partial or total.
- Emasculation: The penis and testicles are removed.
- Lymph node removal: Nearby lymph nodes, inguinal lymph nodes, and sentinel lymph nodes may be removed.

To read more about surgical options for penile cancer, check out "Surgical Procedures: Surgery and Staging for Penile Cancer" at OncoLink.org.

### **Radiation Therapy**

Radiation is the use of high-energy x-rays to kill cancer cells. Radiation may be given to treat cancer in the

penis, lymph nodes, or to try to keep cancer from coming back (recurrence). Radiation can be given with chemotherapy before surgery to try to shrink the tumor to make it easier to remove.

Two types of radiation therapy are used for penile cancer:

- External beam radiation therapy (EBRT): The radiation is delivered from the outside of your body and focused on your penis and nearby areas.
- Brachytherapy (internal radiation therapy): A radioactive source is placed inside your penis.

If you are uncircumcised and need radiation, the foreskin will first be removed. Radiation can cause swelling of the foreskin, which can cause problems with blood flow and feeling.

#### Other Treatments

These treatments may be called "penile-sparing" treatments. These are used mostly for low-grade and earlystage penile cancers, to try to keep as much function of the penis as possible. Examples are:

- Laser Surgery: Used to remove lesions on the skin of the penis.
- Cryosurgery: Cold is used to kill the cancer cells.
- **Topical Chemotherapy**: When the cancer is only within the top layers of the skin, medication can be put right onto these spots to kill the cancer cells (called "topical"). An example of a topical chemotherapy used for penile cancer is 5-fluorouracil (5-FU).
- **Imiquimod:** This topical medication is also put onto your skin and causes your immune system to kill the cancer cells.

#### Chemotherapy

Chemotherapy is the use of anti-cancer medications to treat cancer. Topical chemotherapy (discussed above) and "systemic" chemotherapy that goes through your whole body may be used. You will often receive more than one chemotherapy medication. Examples are cisplatin, fluorouracil (5-FU), paclitaxel, ifosfamide, mitomycin, and capecitabine.

#### Clinical Trials

You may be offered a clinical trial as part of your treatment plan. To find out more about current clinical trials, visit the OncoLink Clinical Trials Matching Service.

# **Making Treatment Decisions**

Your care team will make sure you are included in choosing your treatment plan. This can be overwhelming as you may be given a few options to choose from. It feels like an emergency, but you can take a few weeks to meet with different providers and think about your options and what is best for you. This is a personal decision. Friends and family can help you talk through the options and the pros and cons of each, but they cannot make the decision for you. You need to be comfortable with your decision – this will help you move on to the next steps. If you ever have any questions or concerns, be sure to call your team.

You can learn more about penile cancer at OncoLink.org.

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