

ENDOMETRIAL CANCER TREATMENTS

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Abstract: Endometrial cancer, a type of cancer that affects the lining of the uterus, is the most common gynecological cancer in developed countries. According to the American Cancer Society, approximately 65,000 new cases of endometrial cancer are diagnosed annually in the United States alone. The prognosis for patients with endometrial cancer largely depends on the timely and effective administration of treatment. Fortunately, significant advancements in medical technology and research have led to the development of various treatment options, each with its own set of benefits and drawbacks. This article aims to provide a comprehensive overview of the current treatments available for endometrial cancer, highlighting their mechanisms, efficacy, and potential risks.

Keywords: endometrial cancer, obesity, signs, tests, treatment options, prognosis

Introduction: The endometrium is the lining of the uterus, a hollow, muscular organ in a woman's pelvis. The uterus is the place a fetus grows. In most nonpregnant women, the uterus is about three inches long. The lower, slender give up of the uterus is the cervix, which leads to the vagina. Cancer of the endometrium is one-of-a-kind from most cancers of the muscle of the uterus, which is known as sarcoma of the uterus. See the PDQ precis on Uterine Sarcoma Treatment for extra data about uterine sarcoma.

Obesity and having metabolic syndrome may additionally enlarge the chance of endometrial cancer.

Anything that will increase your danger of getting an ailment is known as a threat factor. Having a danger element does no longer imply that you will get cancer; now not having chance elements would not suggest that you will no longer get cancer. Talk to your medical doctor if you suppose you may additionally be at chance for endometrial cancer.

Risk elements for endometrial most cancers consist of the following:

Taking estrogen-only hormone alternative remedy (HRT) after menopause.

Taking tamoxifen to forestall or deal with breast cancer.

Obesity.

Having metabolic syndrome.

Having kind two diabetes.

Exposure of endometrial tissue to estrogen made through the body. This may additionally be brought about by:

Never giving birth.

Menstruating at an early age.

Starting menopause at a later age.

Taking tamoxifen for breast most cancers or taking estrogen on my own (without progesterone) can amplify the chance of endometrial cancer.

Endometrial most cancers might also strengthen in breast most cancers sufferers who have been dealt with with tamoxifen. An affected person who takes this drug and has odd vaginal bleeding ought to have a follow-up examination and a biopsy of the endometrial lining if needed. Women taking estrogen (a hormone that can have an effect on the boom of some cancers) by myself additionally have a multiplied threat of endometrial cancer. Taking estrogen mixed with progesterone (another hormone) does no longer make bigger a woman's threat of endometrial cancer.

Signs and signs and symptoms of endometrial cancer encompass uncommon vaginal bleeding or ache in the pelvis.

These and different symptoms and signs can also be brought on with the aid of endometrial most cancers or by using different conditions. Check with your health practitioner if you have any of the following:

Vaginal bleeding or discharge no longer associated to menstruation (periods).

Vaginal bleeding after menopause.

Difficult or painful urination.

Pain for the duration of sexual intercourse.

Pain in the pelvic area.

Tests that take a look at the endometrium are used to diagnose endometrial cancer.

Because endometrial most cancers start internal the uterus, it does now not normally exhibit up in the consequences of a Pap test. For this reason, a pattern of endometrial tissue ought to be eliminated and checked underneath a microscope to seem for most cancers' cells. One of the following methods may additionally be used:

Endometrial biopsy: The elimination of tissue from the endometrium (inner lining of the uterus) by means of inserting a thin, bendy tube thru the cervix and into the uterus. The tube is used to gently scrape a small quantity of tissue from the endometrium and then eliminate the tissue samples. A pathologist views the tissue beneath a microscope to appear for most cancers' cells.

Dilatation and curettage: A method to put off samples of tissue from the internal lining of the uterus. The cervix is dilated and a curette (spoon-shaped instrument) is inserted into the uterus to do away with tissue. The tissue samples are checked underneath a microscope for symptoms of disease. This method is additionally referred to as a D&C.

Hysteroscopy: A method to appear inner the uterus for extraordinary areas. A hysteroscope is inserted thru the vagina and cervix into the uterus. A hysteroscope is a thin, tube-like instrument with a mild and a lens for viewing. It can also additionally have a device to do away with tissue samples, which are checked below a microscope for signs and symptoms of cancer.

Other assessments and processes used to diagnose endometrial most cancers consist of the following:

Physical examination and fitness history: An examination of the physique to take a look at established symptoms of health, inclusive of checking for signs and symptoms of disease, such as lumps or something else that looks unusual. A record of the patient's fitness habits and previous ailments and redress will additionally be taken.

Transvaginal ultrasound exam: A system used to observe the vagina, uterus, fallopian tubes, and bladder. An ultrasound transducer (probe) is inserted into the vagina and used to soar high-energy sound waves (ultrasound) off interior tissues or organs and make echoes. The echoes structure an image of physique tissues referred to as a sonogram. The health practitioner can discover tumors by means of searching at the sonogram.

Certain elements have an effect on prognosis (chance of recovery) and therapy options.

The prognosis and remedy picks rely on the following:

The stage of the most cancers (whether it is in the endometrium only, includes the uterus wall, or has unfold to different locations in the body). Endometrial most cancers can generally be cured due to the fact it is typically recognized early.

After endometrial most cancers have been diagnosed, assessments are completed to discover out if most cancers cells have unfolded inside the uterus or to different components of the body.

The manner used to locate out whether or not the most cancers has unfolded inside the uterus or to different components of the physique is known as staging. The data gathered from the staging method determines the stage of the disease. It is essential to comprehend the stage in order to design treatment. Certain assessments and processes are used in the staging process. A hysterectomy (an operation in which the uterus is removed) will normally be finished to deal with endometrial cancer. Tissue samples are taken from the location round the uterus and checked underneath a microscope for signs and symptoms of most cancers to assist discover out whether or not the most cancers have spread.

Surgical Options

Surgery remains a primary treatment modality for endometrial cancer, particularly for patients with early-stage disease. The most common surgical procedure is a hysterectomy, which involves the removal of the uterus, as well as the cervix and surrounding tissues. In some cases, a bilateral salpingo-oophorectomy, which involves the removal of the ovaries and fallopian tubes, may be performed concurrently. Surgery offers several benefits, including the removal of the tumor, reduction of symptoms, and improved quality of life. However, surgical morbidity and mortality rates remain significant concerns, particularly for elderly patients or those with comorbidities.

Radiation Therapy

Radiation therapy, which involves the use of high-energy radiation to kill cancer cells, is often used in conjunction with surgery or as a standalone treatment for patients with advanced or recurrent disease. External beam radiation therapy (EBRT) is the most common type of radiation therapy, where radiation is delivered externally using a machine. Brachytherapy, a form of internal radiation, involves the insertion of radioactive sources into the uterus or vagina to deliver targeted radiation. Radiation therapy can effectively reduce symptoms, such as bleeding and pain, and improve overall survival rates. However, it can also cause significant side effects, including fatigue, urinary tract infections, and gastrointestinal disturbances.

Chemotherapy

Chemotherapy, which involves the use of cytotoxic drugs to kill cancer cells, is typically reserved for patients with advanced or recurrent disease. The most commonly used chemotherapeutic agents for endometrial cancer include carboplatin, paclitaxel, and doxorubicin. While chemotherapy can be effective in reducing tumor size and improving overall survival, it is often associated with significant side effects, including nausea, vomiting, alopecia, and myelosuppression.

Hormonal Therapy

Hormonal therapy, which involves the manipulation of hormonal pathways to inhibit cancer growth, is a relatively new and promising area of research in endometrial cancer treatment. Aromatase inhibitors, such as letrozole and anastrozole, have shown particular promise in reducing estrogen levels and inhibiting tumor growth. Additionally, progesterone receptor modulators, such as mifepristone, have been shown to be effective in reducing tumor size and improving overall survival. Hormonal therapy is often used in conjunction with other treatment modalities and is particularly useful for patients with hormone receptor-positive tumors.

Targeted Therapy

Targeted therapy, which involves the use of drugs that specifically target molecular abnormalities in cancer cells, is a rapidly evolving area of research in endometrial cancer treatment. Drugs such as trastuzumab, which targets the human epidermal growth factor receptor 2 (HER2), and bevacizumab, which targets the vascular endothelial growth factor (VEGF), have shown promising results in clinical trials. Targeted therapy offers several advantages, including improved efficacy and reduced toxicity compared to traditional chemotherapy. However, its high cost and limited availability remain significant barriers to widespread adoption.

Immunotherapy

Immunotherapy, which involves the use of the body's immune system to fight cancer, is a rapidly emerging area of research in endometrial cancer treatment. Checkpoint inhibitors, such as pembrolizumab and nivolumab, which target immune checkpoint proteins, have shown promising results in clinical trials. Immunotherapy offers several advantages, including improved efficacy and reduced toxicity compared to traditional chemotherapy. However, its high cost and limited availability remain significant barriers to widespread adoption.

Conclusion.

Endometrial cancer treatment has undergone significant advancements in recent years, with a range of options available to patients. While surgery remains a primary treatment

modality, radiation therapy, chemotherapy, hormonal therapy, targeted therapy, and immunotherapy offer promising alternatives for patients with advanced or recurrent disease. It is essential for healthcare providers to carefully consider individual patient factors, including age, comorbidities, and tumor characteristics, when selecting the most appropriate treatment strategy. Further research is necessary to improve treatment outcomes and reduce mortality rates, particularly for patients with aggressive or recurrent disease.

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