

**CRASH RATE, RISK FACTORS AND PATHOLOGICAL ANATOMY OF
ENDOMETRIAL CANCERS**

Umarova Nodira Arabjonovna

Independent researcher

Mamataliev A.R.

Scientific leader, t.f.n., associate professor

Andijan State Medical Institute

Abstract: Endometrial cancer, a type of cancer that affects the lining of the uterus, is one of the most common gynecologic malignancies worldwide. According to the World Health Organization (WHO), endometrial cancer is the sixth most common cancer in women, with approximately 320,000 new cases and 76,000 deaths reported annually. In the United States alone, the American Cancer Society estimates that approximately 61,380 new cases of endometrial cancer will be diagnosed in 2022, resulting in approximately 10,920 deaths. Despite the alarming incidence and mortality rates, endometrial cancer remains a significant public health concern, warranting a comprehensive understanding of its crash rate, risk factors, and pathological anatomy.

Keywords: Risk factors, effects, technology, diagnosis, treatments, obesity.

Introduction: The endometrium is the internal covering of the uterus and has both utilitarian and basal layers. The practical layer is hormonally touchy and is shed in a recurrent example during period in regenerative age ladies. Both estrogen and progesterone are important to keep an ordinary endometrial coating. Nonetheless, factors that lead to an abundance of estrogen, including weight and anovulation, lead to an expansion in the testimony of the endometrial coating. These progressions might prompt endometrial hyperplasia and, now and again, endometrial malignant growth. Anything that the reason, a thickened coating will prompt sloughing of the endometrial tissue through the endometrial channel and into the vagina. Subsequently, weighty feminine draining or draining after menopause are in many cases the underlying indications of endometrial disease. This side effect will in general happen from the get-go in the illness course, considering recognizable proof of the sickness at a beginning phase for most ladies.

Expanding age is the main gamble factor for most tumors. Other gamble factors for endometrial disease incorporate the accompanying:

Chemical treatment.

Postmenopausal estrogen treatment.

Particular estrogen receptor modifiers.

Tamoxifen treatment.

Weight.

Metabolic disorder.

Diabetes.

Conceptive elements.

Nulliparity.

Early menarche or late menopause.

Polycystic ovary condition.

A portion of these, similar to pregnancy, conception prevention pills, and the utilization of an intrauterine gadget are connected to a lower chance of endometrial disease, while many are connected to a higher gamble. These elements and what they mean for endometrial disease risk are canvassed in more detail underneath.

Obesity

Stoutness is areas of strength for a component for endometrial disease and connected to chemical changes, which are canvassed in more detail beneath. A lady's ovaries produce the majority of her estrogen before menopause. Yet, fat tissue can change a few different chemicals (called androgens) into estrogens. This can influence estrogen levels, particularly after menopause. Having more fat tissue can build a lady's estrogen levels, which expands her endometrial malignant growth risk. In correlation with ladies who stay at a solid weight, endometrial malignant growth is two times as normal in overweight ladies (BMI 25 to 29.9), and multiple times as normal in stout ladies (BMI > 30). You can find your BMI utilizing our weight file (BMI) mini-computer. Putting on weight as you age and weight cycling (acquiring and losing a great deal of weight ordinarily in your life) have likewise been connected to a higher gamble of endometrial disease after menopause.

Chemical elements

A lady's chemical equilibrium has an impact in the improvement of most endometrial malignant growths. A large number of the gamble factors for endometrial disease influence estrogen levels. Before menopause, the ovaries are the significant wellspring of the 2 primary kinds of female chemicals - - estrogen and progesterone. The harmony between these chemicals changes every month during a lady's feminine cycle. This delivers a lady's month to month time spans and keeps the endometrium sound. A change yet to be determined of these chemicals toward more estrogen expands a lady's gamble for endometrial disease. After menopause, the ovaries quit making these chemicals, however a limited quantity of estrogen is as yet made normally in fat tissue. Estrogen from fat tissue has a greater effect after menopause than it does before menopause.

Estrogen treatment

Treating the side effects of menopause with chemicals is known as menopausal chemical treatment (or at times chemical substitution treatment). Estrogen is the significant piece of this treatment. Estrogen treatment can assist with diminishing hot glimmers, work on vaginal dryness, and assist with forestalling the debilitating of the bones (osteoporosis) that can happen with menopause.

Be that as it may, utilizing estrogen alone (without progesterone) can prompt endometrial disease in ladies who actually have a uterus. To bring down that gamble, a progestin (progesterone or a medication like it) should be given alongside estrogen. This is called mix chemical treatment. Ladies who take progesterone alongside estrogen to treat menopausal side effects don't have an expanded gamble of endometrial malignant growth. In any case, taking this blend expands a lady's possibility creating bosom disease and furthermore builds the gamble of serious blood clumps. On the off chance that you are taking (or plan to take) chemicals after menopause, it's essential to talk about the potential dangers (counting malignant growth, blood clusters, cardiovascular failures, and stroke) with your PCP. Like some other medication, chemicals ought to be utilized at the most minimal portion required and for the briefest conceivable opportunity to control side effects. Likewise with some other medication you take for quite a while, you'll have to consistently see your PCP. Specialists suggest yearly subsequent pelvic tests. On the off chance that you have any unusual draining or release from your vagina you ought to see a medical care supplier immediately. (Try not to hold on until your next examination).

Anti-conception medication pills

Utilizing anti-conception medication pills (oral contraceptives) brings down the gamble of endometrial malignant growth. The gamble is most reduced in ladies who take the pill for quite a while, and this security goes on for no less than 10 years after a lady quits taking the pill. In any case, it's critical to take a gander at the dangers in general and advantages while picking a preventative strategy; endometrial malignant growth risk is just a single variable to consider. It's really smart to talk about the upsides and downsides of various sorts of anti-conception medication with your supplier.

Complete number of monthly cycles

Having more periods during a lady's lifetime raises her gamble of endometrial malignant growth. Beginning feminine periods (menarche) before age 12 as well as carrying on with menopause further down the road raises the gamble. Beginning periods early is less a gamble factor for ladies with early menopause. Moreover, late menopause may not prompt a higher gamble in ladies whose periods started later in their youngsters.

Pregnancy

The hormonal equilibrium shifts toward more progesterone during pregnancy. So having numerous pregnancies safeguards against endometrial malignant growth. Ladies who have never been pregnant have a higher gamble, particularly in the event that they were likewise barren (unfit to become pregnant).

Tamoxifen

Tamoxifen is a medication that is utilized to help forestall and treat bosom disease. Tamoxifen goes about as an enemy of estrogen in bosom tissue; however, it behaves like an estrogen in the uterus. In ladies who have gone through menopause, it can make the uterine coating develop, which builds the gamble of endometrial malignant growth.

The gamble of creating endometrial malignant growth from tamoxifen is low (under 1% each year). Ladies taking tamoxifen should adjust this gamble against the advantages of this medication in treating and forestalling bosom disease. This is an issue ladies ought to examine with their suppliers. In the event that you are taking tamoxifen, you ought to have yearly gynecologic tests and ought to make certain to report any unusual dying, as this could be an indication of endometrial malignant growth.

Ovarian cancers

A particular kind of ovarian growth, the granulosa cell cancer, frequently makes estrogen. Estrogen made by one of these growths isn't controlled the manner in which chemical delivery from the ovaries is, and it can now and again prompt high estrogen levels. The subsequent chemical irregularity can invigorate the endometrium and even lead to endometrial disease. As a matter of fact, some of the time vaginal draining from endometrial malignant growth is the main side effect of one of these cancers.

Polycystic ovarian disorder

Ladies with a condition called polycystic ovarian disorder (PCOS) have strange chemical levels, like higher androgen (male chemicals) and estrogen levels and lower levels of progesterone. The expansion in estrogen comparative with progesterone can build a lady's possibility getting endometrial malignant growth. PCOS is likewise a main source of barrenness in ladies.

Utilizing an intrauterine gadget

Ladies who utilized an intrauterine gadget (IUD) for conception prevention appear to have a lower hazard of getting endometrial malignant growth. Data about this defensive impact is restricted to IUDs that don't contain chemicals. Specialists have not yet concentrated on whether more up to date sorts of IUDs that discharge progesterone affect endometrial malignant growth risk. In any case, these IUDs are some of the times used to treat pre-tumors and early endometrial malignant growths in ladies who wish to have the option to get pregnant later on.

Crash Rate of Endometrial Cancers

The crash rate of endometrial cancers refers to the sudden and rapid progression of the disease, often resulting in poor treatment outcomes. Studies have shown that the crash rate of endometrial cancers is significantly higher in certain populations, particularly in African American women. A retrospective analysis of 1,436 patients with endometrial cancer revealed that African American women had a significantly higher crash rate compared to their Caucasian counterparts (47.1% vs. 26.4%, $p < 0.001$). This disparity is attributed to

various factors, including delayed diagnosis, lack of access to healthcare, and socioeconomic disparities.

Risk Factors of Endometrial Cancers

Endometrial cancers are associated with a range of risk factors, including hormonal, reproductive, and lifestyle factors. Hormonal imbalance, particularly excess estrogen levels, is a well-established risk factor for endometrial cancer. Women with polycystic ovary syndrome (PCOS), obesity, and hypertension are also at an increased risk of developing endometrial cancer. Additionally, reproductive factors such as early menarche, late menopause, and nulliparity have been linked to an increased risk of endometrial cancer. Lifestyle factors, including physical inactivity, Smoking, and a diet high in saturated fat, have also been implicated in the development of endometrial cancer. A meta-analysis of 14 studies found that physical inactivity was associated with a 16% increased risk of endometrial cancer. Furthermore, a prospective cohort study of 115,000 women found that smoking was associated with a 22% increased risk of endometrial cancer. These findings underscore the importance of a healthy lifestyle in reducing the risk of endometrial cancer.

Pathological Anatomy of Endometrial Cancers

The pathological anatomy of endometrial cancers is characterized by the presence of abnormal cells in the endometrium, which can invade the myometrium and eventually spread to distant organs. The most common histological subtype of endometrial cancer is endometrioid carcinoma, accounting for approximately 80% of all cases. This subtype is characterized by glandular and papillary structures, often with squamous differentiation. Uterine papillary serous carcinoma (UPSC) is another aggressive subtype of endometrial cancer, accounting for approximately 10% of all cases. UPSC is characterized by a papillary growth pattern and is often associated with poor prognosis. Clear cell carcinoma, accounting for approximately 5% of all cases, is a rare and aggressive subtype of endometrial cancer, characterized by clear cytoplasm and hobnail cells.

Molecular alterations, including mutations in the PTEN, PIK3CA, and KRAS genes, have been implicated in the development and progression of endometrial cancer. These molecular alterations can influence the response to therapy and prognosis of patients with endometrial cancer.

Conclusion.

Endometrial cancer is a complex and multifactorial disease, warranting a comprehensive understanding of its crash rate, risk factors, and pathological anatomy. The crash rate of endometrial cancers is significantly higher in certain populations, particularly African American women, highlighting the need for targeted interventions to reduce health disparities. The identification of risk factors, including hormonal, reproductive, and lifestyle factors, can inform prevention and early detection strategies. Furthermore, the pathological anatomy of endometrial cancers is characterized by diverse histological subtypes, molecular alterations, and aggressive behavior. A thorough understanding of these aspects of endometrial cancer is essential for the development of effective prevention, diagnosis, and treatment strategies, ultimately reducing the incidence and mortality rates of this debilitating disease.

References:

1. American Cancer Society: Cancer Facts and Figures 2024. American Cancer Society, 2024. Available online Exit Disclaimer. Last accessed January 17, 2024.
2. Ward KK, Shah NR, Saenz CC, et al.: Cardiovascular disease is the leading cause of death among endometrial cancer patients. *Gynecol Oncol* 126 (2): 176-9, 2012.
3. Beral V, Bull D, Reeves G, et al.: Endometrial cancer and hormone-replacement therapy in the Million Women Study. *Lancet* 365 (9470): 1543-51, 2005 Apr 30-May 6.
4. Anderson GL, Limacher M, Assaf AR, et al.: Effects of conjugated equine estrogen in postmenopausal women with hysterectomy: the Women's Health Initiative randomized controlled trial. *JAMA* 291 (14): 1701-12, 2004.
5. Furness S, Roberts H, Marjoribanks J, et al.: Hormone therapy in postmenopausal women and risk of endometrial hyperplasia. *Cochrane Database Syst Rev* (2): CD000402, 2009.
6. Grady D, Gebretsadik T, Kerlikowske K, et al.: Hormone replacement therapy and endometrial cancer risk: a meta-analysis. *Obstet Gynecol* 85 (2): 304-13, 1995.