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FEATURES OF PATHOMORPHOLOGY AND IMMUNOHISTOCHEMISTRY IN HYDATIFORM MOLLE IN THE FIRST TRIMESTER OF PREGNANCY

[1]Madrimova Kuvonchoy Kahramonovna
[1]Matrizaeva Gulnara Dzhumaniyazovna
[2]Nishonov Doniyor Anorbayevich
[1]Urgench branch of Tashkent Medical Academy. Urgench
[2]Republican specialized scientific and practical medical center of oncology and radiology. Tashkent

E-mail: ***gmadrimova@gmail.com***

Abstract: Cystic drift is one of the leading gynecological diseases, and the number of patients with this disease is growing every year. In recent years, the age of women with cystic drift is much younger, and the average age of onset of the disease is 21-39 years. Around the world there are 126 million child birth per year. 126 000 of these get sick with cystic drift or chorionic cancer. Since trophoblastic diseases are now more common in women of reproductive age, they cause infertility, disability, stress and even death in women. Therefore, early diagnosis of the disease and prediction of its dangerous level is one of the important tasks of immunohistochemical studies.

Key words: hydatiform molle, *immunohistochemistry, pathomorphology, receptors, endometrium.*

A gestational trophoblastic disease that originates from the placenta and may metastasize. This tumor is unique in that it originates from pregnancy tissue and not from maternal tissue. Throat is classified as complete and partial and is usually considered a non-invasive form of gestational trophoblastic disease. Although ringworm is generally considered safe, it has the potential to be invasive and dangerous. [1][2][3]

As described earlier, the wrist is full and partial. A complete shunt is the most common type and does not contain any fetal parts, while a partial shunt can detect fetal remains. Full-eared is usually diploid, while partial-eared is triploid. Full goiter causes high levels of the hormone chorionic gonadotropin (HCG), which is one of the main clinical features of this process. Karyotype 46, XX is 90% and 46, XY is 10% in full goiter. It occurs when an enucleated egg is fertilized by two sperm, or haploid sperm, which then multiply and therefore express only the paternal DNA. On the other hand, the karyotype in a partial elbow, 90% is triploid or 69,XXX or 69,XXY. This karyotype occurs when a normal sperm subsequently fertilizes a haploid egg, or when two sperm fertilize a haploid egg. Both maternal and paternal DNA is partially expressed.[4][5][6]

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- There is a very low incidence of thrush. In North America and Europe, this frequency is 60-120 per 100,000 pregnancies. It has been proven that the frequency is higher in other countries of the world. Some risk factors increase the number of goiters:
- Maternal age: A) The risk increases five to ten times over the age of 35. B) early adolescence, usually under the age of 20
- A history of goiter increases the frequency of occurrence in subsequent pregnancies by 1% to 2%

• Dietary factors, including carotene (precursor of vitamin A) and patients with a diet deficient in animal fat

• Smoking

Both types of goiter are associated with overgrowth of the chorionic tumor. Several studies have identified severe vasculogenic insufficiency in trophoblastic disease, markedly impaired angiogenesis in early full-thickness, progressive accumulation of fluid, and subsequent formation of vesicular spaces, known as "cisterns" [7][8][9][10][11]. In full-thickness, the enucleated oocyte is fertilized by two sperm cells or, more often, by a single spermatozoon originating from a haploid spermatozoon, which undergoes endoreduplication, resulting in the expression of only the father's DNA; this aberration lacks mitochondria because the mitochondrial DNA comes from the mother. Conversely, in partial goiter, a haploid egg cell reproduces and is fertilized by a normal sperm, or a haploid egg cell is fertilized by two sperm, resulting in expression of both maternal and paternal DNA[12]. Briefly, full elbow is diploid (46,XX; 46,XY), most partial elbow is triploid (69, XXY; XXX; XYY). A triploid or tetraploid complete scrotum is androgenetic (because they do not have maternal chromosomes), while a tetraploid partial scrotum has the karyotype of the mother. Choriocarcinoma is characterized by chromosomal abnormalities that can lead to malignant transformation. The most common changes leading to malignant transformation are activation of oncogenes, inactivation of tumor suppressors, and changes in telomerase regulation.

In addition, the results of the morphological examination of the pathomorphologically studied changes are currently recognized as the gold standard throughout the world. For immunohistochemical examination, the expression of Ki-67, CD34, R53 and oXG monoclonal antibodies was studied using Bond Leica Australia (Australia) immunohistoprocessor.

The function of these antibodies is as follows:

w p53- The antigen for these antibodies is the w r53 protein, which controls the progress of cell cycle processes, as well as the presence of damage in the genome, which can lead to the further development of pathology. w r53-dependent apoptosis is a strong selector that prevents the accumulation of mutations, and if they have already appeared, w r53-dependent apoptosis allows the destruction of such potentially dangerous cells for the organism.

A tumor suppressor gene found to have mutations in 50 percent of all types of cancer. This gene encodes a transcription factor that controls cell entry into the cell cycle. Many intracellular systems

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that monitor the "health" of the cell transmit signals about "malfunctions" to the w r53 protein. With its help, the cell decides whether to divide or not. If a cell is irreparably damaged, the w p53 protein triggers a chain of events that causes the cell to "suicide," otherwise known as apoptosis. Cells that do not have W r53 or do not function properly are not capable of such self-regulation and continue to divide even when it is dangerous for the body. Like all tumor suppressors, w p53 controls the normal course of the cell cycle. w p53 is a transcription factor that regulates the cell cycle, this reagent performs the function of suppressing the formation of malignant tumors. The p53 gene is considered antioncogene.

Ki-67 protein (also known as MKI 67) is a cell marker for proliferation [10] and can be used in immunohistochemistry. It is strictly related to cell proliferation. In interphase, Ki-67 antigen can be detected only in the cell nucleus, while in mitosis, most of the protein is transferred to the surface of chromosomes[11]. Ki-67 protein is present in all active phases of the cell cycle (G1, S, G2, and mitosis), but is absent in quiescent (quiescent) cells (G0) [12]. The cellular content of Ki-67 protein increases significantly during cell progression through the S phase of the cell cycle [13]. In breast cancer, Ki-67 identifies a high proliferative subset of eR-positive breast cancer patients who benefit more from adjuvant chemotherapy. Ki-67 is an excellent marker for determining the growth fraction of a specific cell population. The percentage of Ki-67-positive tumor cells (Ki-67 labeling index) is often associated with the clinical course of cancer. The best-studied examples in this context are carcinomas of the prostate, brain, and breast, as well as nephroblastoma and neuroendocrine tumors. The prognostic value of survival and tumor recurrence for these types of tumors has been repeatedly proven in univariate and multivariate analyses. Ki 67 nuclear oxygen is a marker of proliferative activity of tumor cells and is evaluated as a percentage. Ki-67- is used to determine the biological quality of malignant tumors in humans for the purpose of diagnosis. Staining of nuclear cells is described as follows. <10% low fa activity, 10-20% medium activity, >20% high proliferative activity. Through these results, it is possible to determine the prognostic factor of cancer. CD34 is a membrane protein, an intercellular adhesion molecule that plays a role in the early stages of hematopoiesis. CD34 mediates binding of stem cells to bone marrow extracellular matrix or directly to stromal cells. The protein serves as a scaffold for the attachment of specific glycans, which allows stem cells to attach to lectins produced by stromal cells or other components of the bone marrow. In addition, highly glycosylated CD34 provides carbohydrate ligands for selectins.

HCH hormone is a hormone produced in the membrane of the human embryo during pregnancy. Its role is to stimulate the production of progesterone, which is very important for maintaining pregnancy. Early detection of pregnancy, including quick tests at home, is based on the determination of hCH levels. This hormone is also produced by some types of tumors, so hCH is an important tumor marker. Immunohistochemical study is conducted to analyze various processes.

This examination is for the purpose of determining the molecular structures in cells, to study the location of cells, to study the prevalence or histogenesis of tumor diseases, to monitor these processes in the development of pre-cancerous processes, to determine the prognostic complications of diseases, to determine the stages of tumors and treatment tactics, to monitor the dynamics and control of treatment processes, tumor It is important for this investigation to identify risk groups that may cause diseases.

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