



MODERN WAYS OF TREATMENT OF CHRONIC ENDOMETRITIS

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ABSTRACT

The study of markers of signal chains that control proliferative cascades at the endometrial level in comparison with the response to the introduction of a pathogenic infection and morphological transformations contributes to expanding the understanding of pathogenetic variants of CE and, accordingly, the choice of differentiated therapy in order to restore fertile potential after reproductive losses.

Aim. To expand the understanding of the pathogenesis of chronic endometritis (CE) based on the study of reception to steroid hormones and markers of cell proliferation/apoptosis in its different types, depending on the nature of microbial colonization of the uterine mucosa.

Chronic endometritis (CE) is an inflammatory process with disruption of the structure and function of the endometrium, the variability of its frequency is explained by diagnostic difficulties. The latent course and erased clinical symptoms, ambiguous interpretation of the results of various verification methods determined the debatability of ideas about the involvement of the disease in reproductive losses (RP) [1, 2]. It is believed that CE is the cause of infertility (12-46%), unexplained origin - in 28%, recurrent miscarriage (12%), repeated IVF failures (30%) and low implantation rates (11.5%) [3, 4, 5]. The category of women with an "abortion" mentality [6, 7], 40% of whom terminate their first pregnancy, in the absence of a rehabilitation course, represent a risk group for RP: pathomorphological confirmation of CE is present in 25% of samples of the uterine mucosa. Obvious modern predictors of CE: herbal endometrial tissue during abortion and other intrauterine devices manipulations in conditions of prevalence in vaginal biotope vaginosis-associated infections, the persistence of which is due to stoma of somatic and gynecological diseases capacity of women of reproductive age, infection with human papillomavirus (HPV), the practice of unnecessary vaginal sanitation instead of restoring normobiocenosis [8]. The ability to recognize ChE at modern times at this stage solely based on clinical manifestations seems doubtful: when ascending the following route of infection: habitual acute and the chronic course of the disease began to contrast its erased forms with the primary chronic process. Prerequisites: none lack of fundamental ideas about the genesis diseases, differential diagnosis with a

number of diseases and evidence-based therapeutic base with unreasonable prescription of antibiotics in 75%, focusing only on pelvic pain with many times low actual demand for eradication therapy. Its feasibility in some cases is not denied: comparable frequency between indicators of gestational complications doubts, premature birth and the onset of pregnancy with recurrent failures in cycles of in vitro fertilization – embryo transfer (IVF - ET) in women with CE associated with effective antibacterial treatment [9]. Undiagnosed and unreported cases diseases in the absence of fundamental following and rehabilitation course for women with RPs create a precedent for the vicious circle of miscarriage. The “weak link” in the detection of ChE is recognized for microbiological diagnostics: rare detection of infection in samples of mucous membranes does not exclude its trigger role since blowing elimination. Lack of microbial endometrial contamination may be associated but with difficulties in identifying microbial cultures, especially anaerobes. Statement prevalence of non-gonococcal and non-chlo-mussel endometritis is confirmed by the fact there is leukocyte infiltration of the mucous membrane in the presence of presence in the cervical canal mycoplasma genitalium, viruses and trichomonas Yes, like “superbugs” (Escherichia coli, enterococcus, staphylococcus). The disputed the role of opportunistic flora in the genesis ChE confirm the facts of contamination of cocci and vaginosis-associated infections with the development of inflammatory process in the uterine mucosa. However, you should use enable the possibility of sample contamination endometrium cervical and vaginal flo swarm in the process of research. Conclusion of the FIGO (2012) session on the possibility approval of the autoimmune genesis of CE in the absence of the infectious factor allows the approval expect the presence of pathogenetically different variants of the disease. The influence of asymptomatic persistence of micro-organism when verifying chronic inflammation process in the mucous membrane raises the water request for analysis of changes in dynamic equilibrium this microbe-macroorganism system from the perspective pathomorphological stigmas of the disease. Question Symptoms of pathogenetic approaches in the treatment of CE separable from the study of endo-control mechanisms metric growth, defective in chronic inflammation. The influence of infections as triggers of excessive mucosal proliferation or pro-apoptotic processes, especially in connection with changes in micro- architectonics and receptor activity [10]. Control of cell numbers by infection endometrial populations determines the balance of pro – and antiapoptotic factors. Pro- proliferation cascades in the endometrium are estimated based on the expression of estrogen receptors and progesterone, Ki-67 proliferation marker, effector caspases of apoptosis. Trigger role apoptosis blockers have been proven for gonococcus, mycoplasma hominis, but in detail - for trash due to the degradation of proapoptotic proteins BH3 family and stimulation of anti- apoptotic proteins Bcl and IAP [11]. Discussion the role of infection as a trigger of cell proliferation walkie-talkie will contribute to the understanding of subtle mechanisms of endometrial damage, in- the production of which predetermines the cascade of inflammation body events and hyperplastic reaction endometrium.

Returning from micro-failures to macro-level, let us note the proven fact of various morphological phenomena in CE, but not the questions remain clear: what is atrophy is the final phase of chronic inflammation or a consequence of newly occurring and progressive dystrophy. Hyperplastic The reaction of the uterine mucosa during cholecystectomy is refuting the isolated role of progesterone rondeficiency states in the genesis of miscarriage

and proves that unjustified appointment. The use of antibiotics activates autoimmune processes. It seems significant to discuss introduction of the concept of microbial induction of imbalance processes of apoptosis and proliferation of endometria.

Purpose of the study: to expand knowledge about pathogenesis of chronic inflammation of the mucous membrane uterine lobes as a result of a reception study to markers of cell proliferation/apoptosis and steroid hormones for its different types in depending on the nature of microbial colonization uterine mucosa. Materials and methods A group of 45 women was prospectively examined. women with early reproductive losses (present with a history of non-developing pregnancy miscarriage, spontaneous miscarriage, artificial miscarriage, IVF failures up to 6 months after intrauterine intervention), in which CE was histologically verified. Research methods: microbiological (PCR diagnostics, bacteriological research discharge of discharge from the cervical canal, draining zygotic uterus); instrumental (hysteroscopy). Pipelle biopsy of the endometrium was performed at 7-9 day of m.c., during hysteroscopy and on days 22-24 m.ts. in order to clarify the condition of the mucous membrane, with patomorphological examination.

Verification of CE was carried out by isolating we eat macrotypes (hysteroscopic assessment of thickness mucous membranes, in the dynamics of the cycle, coloring - presence of hyperemia or pallor, focal or diffuse hyperemia, micropolyps, vascular mixed reactions): hyper-, hypoplastic and displaced Immunohistochemical study of endometry: assessment of estrogen receptor expression us, progesterone ("Dako", Denmark), a marker of pro- mucosal proliferation (Ki-67) and apoptosis (CPP32). Results and discussion Morphological study of biopsy specimens dometry showed its variability with different personal macrotypes of HE. Severe inflammatory infiltration stroma by lymphocytes - focal . Actually, with hypoplastic macrotype - 69.2%, $p < 0.05$) and diffuse (for the rest - hyperplastic) static (80.7%, $p < 0.05$) and mixed (68.5%, $p < 0.05$) was regarded as one of the main reasons signs of HE, supplemented by other stigmas. Plasmatic cells were detected only in 75.2% of cases mixed and hyperplastic macrotypes and 53.3% - hypoplastic ($p < 0.05$), contrary to the pre the restoration of their constant infiltration scorched mucous membrane. Dystrophic processes of the endometrium, fibrotic restructuring of the stroma and walls spiral vessels in the outcome of proapoptotic activity when the balance of the "proliferator" is disrupted -programmed cell death" predominates given in hypoplastic macrotype of CE (85%) and were found in 37.8% of women with mixed ($p < 0.05$). From the perspective of modern ideas, Endometrial atrophy should not be considered only as a variant of inflammation, but also as an independent active, first-time process, associated with violation of regenerative-plastic potential of the uterine mucosa.

Stromal fibrosis, focal -mainly perivascular, diffuse - involving large areas of mucous membrane (hysteroscopically in a small percentage intrauterine devices were detected synechia). Hyperplasia of the mucous membrane against the background of vascular clear reactivity, with hemorrhage ascertained - penetration into the stroma (40.6%) - focal or diffuse occurred in 79.8% of women with the same hyperplastic macrotype of CE. Representative- prostrate with a mixed macrotype was distinguished by histological heterogeneity of the endometrium - due to reduction of areas of fibrosis and atrophy with reduced activity of compensatory-restorative cellular renewal reactions. The prevalence of focal mucosal hyperplasia uterine stasis with mixed macrotype CE (62.1%)

were identified together with signs of productive vascular litas (31.5%). Endometrial dyschronosis, absence decidu-like metamorphosis and inadequate rate of angiogenesis in the presence of other markers HE can be interpreted as a prediction morphological failure of the luteal phases of the cycle, the correction of which is exclusively progesterone therapy is associated with riskssecond miscarriage [1]. Probably at the core endometrial reactions to damage vary personal phenotypic expression of epithelial , and atrophy can serve as an example adaptive cell response [11]. Identification of various hysteroscopic macrotypes of CE with characteristic for each variant morphological picture and microbial representation vitele explains the interest in studying balance of the processes of apoptosis and proliferation.

Conclusion. Consequently, remodeling of inflammation of the uterine mucosa is realized in characteristic for each macrotype the pathomorphological features for and homeokinesis, caused by variable the balance of cell proliferation processes tion and apoptosis. The morphological basis of hypoplastic macrotype are dystrophic-atrophic- logical changes in the endometrium, mixed – through development of areas of dystrophy and fibrosis, hyperplastic – induction of micropolypoids growths against the background of a common lympho-
cytic infiltration of the mucous membrane. Glue rates precise renewal of the uterine mucosa during cholecystectomy detected by the activity of persisters in endometrial infections: with endometrial dystrophy – diagnostically significant titers opportunistic strains (Escherichia coli-, enterococcus, anaerobes, acteroids), with “mosaicism” of the mucous membrane – mycoplasmas, their associated cations with HSV2 and opportunistic strains, hyperplastic macrotype - chlamydia, HSV2 and their combination. Study of signaling chain markers control of proliferative cascades on endometrial level in comparison with the due to the introduction of pathogenic infection and marine promotes phological transformations expansion of ideas about pathogenetic CE options, according to the choice of differential renounced therapy for the purpose of recovery fertile potential after reproductive losses.

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