

Treatment of Mixed Vulvaginitis in Women with Inflammatory Diseases of the Cervical and Genital

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Abstract: Goal: : study of the clinical and laboratory effectiveness of using the drug Klindox (suppositories No. 7, vaginal, containing 100 mg of clotrimazole, tinidazole and clindamycin) for the treatment of vulvovaginitis of mixed etiology in patients with inflammatory diseases of the cervix, as well as the effectiveness of using this drug for the prevention of relapse.

Methods: We examined 41 patients with diseases of the cervix and vulvovaginitis of mixed etiology. It has been established that Klindox (vaginal suppositories containing 100 mg of clotrimazole, tinidazole and clindamycin) can serve as the drug of choice for the treatment and prevention of recurrence of inflammatory diseases, which is highly effective and safe. During the use of the drug, there are no undesirable side reactions, it is able to normalize the indicators of clinical and laboratory examination in 97.6% of cases and improve the condition in this contingent of patients.

Results: During the period 2022-2023, at the Bukhara Regional Medical Diagnostic Center, we examined 41 women who consulted with various gynecological diseases at the age of 20 to 59 years. The age groups were comparable: the average age of patients in the 1st main group was 29.61 ± 1.19 years.

Keywords: vulvovaginitis, bacterial vaginosis, inflammatory disease cervix.

According to different authors, inflammatory diseases of the female genital organs rank first (55-70%) in the structure of gynecological morbidity [1, 6,20-30]. The increase in the prevalence of cervical pathology can be associated with both an increase in the number of cases of atypical course, cases of little or asymptomatic course of the disease, as well as with insufficient clinical and diagnostic examination of patients. Since in practice it is not possible to use such methods of examining the cervix as cytochemical, immunohistochemical and others [1,4,31-40].

An essential place in the structure of this pathology for; take nonspecific bacterial vulvovaginitis. Almost every fifth (19.2%) patient in gynecological practice suffers from nonspecific vulvovaginitis, and among women with pathological leucorrhoea, their frequency increases 4 times [1,40-47].

The frequency of bacterial vaginal infections reaches 80% among the pathological conditions of the female genital area [18]. In this case, there is a polymicrobial nature of nonspecific vaginitis, combined in 50-60% with a fungal infection of the vagina.

Combined antibacterial drugs for topical use are currently very popular. However, literature data indicate a large number of relapses occurring at different times after the use of this group of drugs; in some cases, the deficit of endogenous lacto and vaginal bifidoflora persists and even aggravates [9]. Treatment of vaginal infections with antibiotics, local anti-infectious drugs leads to the suppression of lactobacilli, which entails a recurrence of the disease [11].

Antiseptic therapy not only does not reduce the frequency of dysbiotic disorders, but also vice versa, increases the risk of infectious and inflammatory diseases [16]. The reason for this paradox lies in the fact that the prescribed drugs exacerbate the existing imbalance of the vaginal biocenosis and thereby cause more significant harm to a woman's health than the absence of such treatment at all. The incidence of infections caused by antibiotic-resistant bacteria is increasing in the population and in health care settings, making these infections an important public health problem that is relevant to health systems in the countries of the WHO European Region [8].

Unfortunately, doctors too often prescribe the wrong antibiotics, which are given in international recommendations; the low quality of certain generics, in which the content of the active substance ranges from 96% to 75%, also complicates the treatment. Although a reduced concentration does not affect clinical efficacy, it inevitably entails an acceleration in the formation of antibiotic resistance [15]. Overuse and inappropriate use of antibiotics can cause bacteria to develop resistance to these drugs, making infections that normally respond well to antibiotic treatment are difficult, if not impossible, to cure. That is why rational antimicrobial therapy is so important: the clinical diagnosis should be as accurate as possible, the initiation of antibiotics should be preceded by a microbiological study; antibiotic therapy should be resorted to only when it is really necessary; you need to start treatment with antibacterial drugs as early as possible; a choice should be made in favor of the optimal drug (which is determined either by the results of an assessment of sensitivity to antibiotics, or by clinical protocols for a particular situation); it is important to correctly determine the dose, frequency and method of administration of the drug; treatment must be continued until an obvious recovery; antibiotic therapy should be combined with other treatments; control of recovery is required at the end of the course of antibiotic therapy [7].

According to epidemiological studies, in the structure of inflammatory diseases of the female reproductive sphere, the largest percentage is inflammatory processes, the etiological factor of which is conditionally pathogenic bacteria and fungi that make up the normal microflora. Often, the absence of a specific picture of inflammation and an asymptomatic course complicate the diagnosis, which contributes to the chronicity of the process and negatively affects the reproductive function of women. An indicator of a woman's health is the vaginal microflora, which is a dynamic system that responds to all changes in hormonal and immunological status. Infection of a woman's vagina with aerobic and anaerobic microorganisms leads to the development of inflammatory diseases of the female genital organs (vulvitis, colpitis, cervicitis, endometritis, salpingitis and pelvioperitonitis). Of these diseases, bacterial vaginosis is most often diagnosed (from 5% to 25% of patients visiting a gynecologist), caused by 2-3 anaerobic pathogens and from 1 to 5 aerobic cultures. The vagina is normally colonized by numerous bacteria, mainly lactobacilli (*Lactobacillus* sp.), which mainly maintain the pH of the vagina below 4. Bacterial vaginosis can develop due to a change in the nature of the dominant flora of the vagina (dysbiosis) and, as a rule, this complication is *Gardnerella* (*Gardnerella vaginalis*). Bacterial vaginosis is one of the most common causes of vaginitis (up to 60% of cases). Risk factors include low socioeconomic status, use of intrauterine contraceptives (IUDs), multiple sexual partners, and smoking. Many patients do not have pathological symptoms or note the presence of minor vaginal discharge. In the case of a symptomatic disease, patients complain of profuse rare discharge that does not cause irritation, but is accompanied by an unpleasant "fishy", amine odor. The main complaints of patients with bacterial vaginosis are abundant white discharge, burning sensation in the perineum, vulva and vagina, discomfort during intercourse, burning during urination, which leads to impaired performance and a decrease in the quality of life of a woman.

The clinical significance of inflammatory diseases of the vagina lies not only in the discomfort of the patients, but also in the high risk of ascending infection of the female genital organs. Chronic inflammatory diseases of the vagina are an etiological factor in the development of erosion and dysplasia of the cervix, therefore, effective therapy for such mixed infections can be carried out only if drugs with a complex effect are used.

Goal: study of the clinical and laboratory effectiveness of using the drug Klindox (suppositories No. 7, vaginal, containing 100 mg of clotrimazole, tinidazole and clindamycin) for the treatment of vulvovaginitis of mixed etiology in patients with inflammatory diseases of the cervix, as well as the effectiveness of using this drug for the prevention of relapses.

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undesirable side reactions, it is able to normalize the indicators of clinical and laboratory examination in 97.6% of cases and improve the condition in this contingent of patients.

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Information on clinical and anamnestic data included: filling out a questionnaire developed by us, indicating the full name and surname, patient, age, date of birth, presence of bad habits, information about somatic history and previous operations, age of sexual debut, methods of contraception, age of menarche and features of gynecological history.

A thorough history collection was carried out, which included the following data:

- Diseases transferred in childhood and as an adult;
- Onset of menarche;
- The nature and formation of menstrual function;
- Lifestyle and bad habits;
- Postponed gynecological diseases;
- Outcome of pregnancies and childbirth;

Infectious diseases transferred in childhood and adolescence occur in general in slightly larger numbers than in the population (Table № 1).

Table № 1. The incidence of diseases suffered by patients in childhood

Somatic diseases	n=41	%
Influenza	35	85,4
ARVI 2 or more times a year	17	48,6
Hepatitis A	5	12,2
Rubella	21	51,2

The data on the past infections in the examined patients indicate that 11 (26.3%) women have mixed infections (a combination of 3 or more infections) (Table 2).

Table 2. Previous infections in the examined patients

Symptoms	n=41	%
Recurrent bacterial vaginosis	17	41,5
Chlamydia	6	14,6
Trichomoniasis	2	4,9
Gonorrhea	1	2,4
Herpes simplex virus (HSV)	8	19,5
Ureaplasmosis (mycoplasmosis)	7	17,1
Mixed infections (combination of 3 or more)	11	26,3

Data on the age of onset of menarche are presented in table. 3 and generally correspond to the average in the population.

Table 3. Age of onset of menarche

Age	n=41	%
11	1	2,4
12	8	19,5
13	14	34,1
14	12	39,3

15	3	7,3
16	2	4,9
17	1	2,4

It should be noted that all surveyed women led an active sex life and used various protective means. They were mainly used with intra-uterine alcohol (30.0%), barrier barrier materials (20.0%), combined or 7(10,1 %) of women had surgical sterilization (Table 4).

Table 4. Contraceptive methods used by the surveyed women

№	Contraceptive	n=41	%
1	Intrauterine device	12	29,3%
2	Barrier materials	8	19,5%
3	COC	9	21,6%
4	Spormicide	16	39%
5	Surgical sterilization	4	9,6%

The teaching of the causes of precancerous diseases of the cervix is the long-term wearing of various intrauterine contraception, for the purpose of contraception, women of reproductive period are recommended to use COC contraception containing methylfolate Yarina plus, Jess plus for 3-6 months.

The gynecological history in 7 (17.07%) patients was burdened by medical and involuntary abortions, in 34 (82.9%) - inflammatory diseases of the genital organs. The survey also revealed that only 10 (24.4%) women sought help for colpitis for the first time, and all other patients (75.6%) were repeatedly treated with different means.

Patients complained of white discharge 33 (82.9% of cases), itching and burning in the external genital area 13 (31.7%) and in the vagina 19 (46.3%), discomfort during and after intercourse 11 (26.8%), dysuric phenomena 8 (19.5%).

During the macroscopic assessment, the amount of vaginal discharge was assessed as insignificant in 14.6% of the surveyed, moderate in 31.7% and significant in 53.7% of the surveyed.

The nature of vaginal leucorrhoea was also different: mucous-white discharge prevailed in 12% of patients, curd discharge in 24%, purulent discharge in 36%, foamy discharge in 28%. More often, the patients noted the mixed nature of the discharge, from watery, mucopurulent to abundant watery with an admixture of curd and foamy - 74% of cases.

The reaction of the secretions was weakly acidic at the IV degree of purity, the Doderlein sticks were absent, a large number of leukocytes and coca flora were determined. The discharge reaction in 92,7 % of cases was alkaline, in others it was neutral.

Against the background of III and IV degrees of purity of the vaginal flora, the following pathogens were identified in smears: *Trichomonas vaginalis* - in 7 (17,07%) patients, signs of bacterial vaginosis (*Gardnerella vaginalis*, etc.) - in 10 (24,39%), *Candida albicans* - in (9,76%), *Gardnerella vaginalis* in combination with *Candida albicans*, etc. (mixed infection) - in 20 (48,78%).

The effectiveness of therapy was assessed by the dynamics of complaints, the results of a gynecological examination, laboratory tests of vaginal discharge immediately after the end of the course of treatment and control after 1 month.

The positive results of the treatment course were the absence of complaints and objective symptoms of the inflammatory process, restoration of vaginal microbiocinosis: elimination of pathogenic flora, the appearance of lactobacilli and an increase in their concentration, normalization of the pH of the vaginal contents, the absence of "key cells" and leukocytosis on microscopic examination. Already after 2-3 days of local therapy, there was a noticeable decrease in discharge and signs of inflammation. After the end of the course of treatment in 10 days, complete recovery was observed in 25 (61%) women, a significant improvement in the condition - in 17 (41,4%). In general, positive results of local treatment

were obtained in 35 (85.4%) women after 10–12 days, both in patients with monoinfection and mixed infection. Control studies performed after 1 month indicate that 34 (82.9%) women had a stable positive result of therapy. Residual effects of the postponed inflammatory infectious process in the form of changes in the vaginal microbiocenosis (low saturation with lactobacilli, changes in the pH of the vaginal contents) were observed in 5 (12.2%) patients. In 2 (5.4%) women, a relapse of the disease was noted, and these patients initially had a mixed vaginal infection and the relapse of the disease was accompanied by a change in the composition of the associate (fungi with *Trichomonas* were replaced by a combination of fungi with bacteria).

With the intravaginal administration of Klindox capsules once a day at a dose of 100 mg clindamycin and 100 mg clotrimazole, a positive dynamics of treatment was noted already on the 2-3rd day, and after the course of treatment, the indicators of clinical and laboratory examination and improvement of the patient's condition were normalized. It should also be noted that the use of Klindox not only suppressed the pathogenic flora, but also restored the normal vaginal microbiocenosis, noted a faster reparative local effect in inflammatory diseases of the cervix and genitalia.

Conclusions.

1. This drug can be used as monotherapy or as part of the complex therapy of vulvovaginitis and inflammatory diseases of the cervix, mixed infections.
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CONFLICT OF INTEREST

The authors declare that they have no competing interests.

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