

N.A. Hamidova, I.A. Mammadkhanova
Azerbaijan Medical University, Baku, Azerbaijan

ABNORMAL VAGINAL DISCHARGE IN WOMEN OF REPRODUCTIVE AGE AND THE WAYS OF ITS MANAGEMENT

e-mail: mic.amu@mail.ru

The purpose of the study was to determine the perception levels of young women of vaginal discharge and their traditional practices for vaginal discharge. The data collection form comprised a questionnaire with 4 sections and 46 questions. The rate of abnormal vaginal discharge seen in the study is 19.3 %. Among women, the rate of using traditional methods for complaints of vaginal discharge is 14.2 %. Traditional methods used for abnormal discharge; drinking onion garlic parsley juice (14.7 %), putting cotton or cloth in the vagina (11.2 %), boiling onion, parsley, nettle, chamomile and washing the vagina (2.5 %), vinegar, soda or wiping the vagina with lemon juice (0.9 %), placing garlic in the bowl (1.8 %). 12.6 % of women using traditional methods stated that the method is effective. It is recommended to evaluate the traditional practices used for genitourinary tract infections, to consider the results such as effectiveness, harm, and cost, and to conduct regional and more research.

Key words: vagina, vaginal discharge, lactobacilli, women, bacterial vaginosis.

Н.А. Хамідова, І.А. Мамедханова

АНОМАЛЬНІ ВИДІЛЕННЯ З ПІХВИ У ЖІНОК РЕПРОДУКТИВНОГО ВІКУ І МЕТОДИ БОРОТББИ З НИМИ

Метою дослідження було визначення оцінки молодими жінками виділень із піхви та їх традиційних практик щодо виділень. Форма збору даних складалася в цілому з опитувальника, що включає 4 розділи і 46 питань. Частота аномальних виділень із піхви, що спостерігаються у дослідженні, склала 19,3 %. Серед жінок частка використання традиційних методів при скаргах виділення з піхви становить 14,2 %. Традиційні методи, що використовуються при аномальних виділеннях, полягали в питті соку цибулі, часнику, петрушки (14,7 %), закладанні у піхву вати або тканини (11,2 %), промиванні піхви відварами цибулі, петрушки, кропиви, ромашки (2,5 %), оцтом, содою чи протирання піхви соком лимона (0,9 %), або часнику (1,8 %). 12,6 % жінок, які використовують традиційні методи, заявили, що метод ефективний. Рекомендується оцінити традиційну практику, що застосовується при інфекціях сечостатевої шляхів, розглянути такі результати, як ефективність, шкода, вартість, провести регіональні та більші дослідження.

Ключові слова: піхва, виділення з піхви, лактобактерії, жінки, бактеріальний вагіноз.

An abnormal vaginal discharge is a frequent symptom of reproductive tract infection in women of reproductive age. Abnormal vaginal discharge is characterized by a change in color, consistency, volume or odor, and may be associated with symptoms such as itch, soreness, dysuria, pelvic pain, intermenstrual bleeding or postcoital bleeding [6, 8].

Normal vaginal discharge contains lactobacilli, a group of gram-positive bacteria. After menarche, glycogen is stored in the epithelial cells of the vagina under the influence of the hormone estrogen and converted into glucose. Lactobacilli then convert the glucose into lactic acid. Thickening of the vaginal mucosa occurs before puberty due to the effects of estrogen visible later [9].

As women age, estrogen levels decrease and vaginal pH increases. Fewer lactobacilli are in the environment, which convert glycogen and glucose from epithelial cells into lactic acid. The normal pH of the vagina is 4.0–4.7. Thus, the production of lactic acid is reduced, and the pH of the vagina changes [4]. The vagina is cleansed with a secretion produced by the endocervix. There is a change in the menstrual process due to the effects of estrogen and progesterone. normal vaginal discharge. It is white, light in color, odorless and non-irritating. During ovulation, it is transparent, white, thick, elastic (stretchable) and for the remainder of the cycle it is clear and sticky. The amount of vaginal discharge varies among women and averages 1–4 ml per day [4, 8].

Reproductive tract infections encompass sexually transmitted infections (STIs), vulvovaginal candidiasis, and bacterial vaginosis (BV). STIs remain a significant global health challenge [9]. Every year, approximately one million women in the world are exposed to non-sexually transmitted urogenital infections such as bacterial vaginosis. At least 75 % of women have a history of any genital infection The World Health Organization (WHO) estimates a daily incidence of one million STIs [5]. In 2020, there were an estimated 374 million new infections with one of four STIs, namely Chlamydia trachomatis (129 million), Neisseria gonorrhoeae (82 million), Treponema pallidum subspecies pallidum (syphilis; 7.1 million), and Trichomonas vaginalis (TV) (156 million) (WHO, 2022). These microorganisms cause an abnormal vaginal discharge [5, 7]. Vulvovaginal candidiasis is caused by Candida species, mainly Candida

albicans (5–26 %) [13]. Bacterial vaginosis (BV) is the most prevalent microbiological cause of abnormal vaginal discharge with a prevalence of 30–50 % among women of reproductive age [1, 2, 3].

Among the factors influencing the physiological discharge: age (prepubertal, reproductive age, postmenopausal period), hormonal factors (hormonal contraceptives, cyclic changes, pregnancy), local factors (menstrual period, postpartum period, malignant neoplasms, semen, personal habits and hygiene). When we look at the reasons why women of reproductive age apply to gynecology outpatient clinics, problems related to the deterioration of the structure and physiology of the reproductive organs are at the top of the list. It has been stated that genital infections are the most common among these problems [10, 11].

In the screening program for healthy women conducted in primary care, it was stated that vaginal symptoms were observed (10 %), and complaints of odor and itching were also present along with normal discharge. More than 75 % of complaints are caused by vaginitis, and 90 % of infections are caused by vulvovaginal candidiasis and bacterial vaginosis. With appropriate diagnosis and treatment of urogenital symptoms [5].

It was stated that the symptoms were easily relieved. However, it has been stated that 30 % of women cannot receive appropriate treatment because they cannot receive a proper diagnosis. It has also been found that women resort to inappropriate treatment methods to alleviate their complaints. Symptoms worsen as a result of not applying the correct treatment. Vaginal discharge that is persistent and does not go away for a long time also affects the psychosocial health of the woman. For women, vaginal complaints are perceived as a threat to reproductive health, cause poor self-perception, and cause hesitation in initiating sexual intercourse. Thus, the woman's quality of life decreases [10, 11].

The purpose of the study was to determine the perception levels of young women of vaginal discharge and their traditional practices for solution of it.

Materials and methods. The study is quantitative, descriptive and cross-sectional in nature. Women (N=4622) participated in the study. Since the outcome measure in this research is categorical, the sample formula $n = \frac{N \cdot t^2 \cdot p \cdot q}{d^2 \cdot (N-1) + t^2 \cdot p \cdot q}$ was used to calculate the volume. For the formula, N=4622, p=10, Q=90, t=1.96, d=0.04 were taken and the minimum sample size was calculated as 207 people. In order to increase the representativeness of the sample calculated in the research, data was collected from 285 people completed. The observation was performed at the base of the departments of Obstetrics and Gynecology II and Dermatovenerology, at Azerbaijan Medical University.

Taking a good medical history (medical and surgical history, reproductive and menstrual history, nutritional history) is very important for the correct diagnosis and treatment of persistent vaginal discharge, so, we analyzed them during data collection.

Symptoms such as vulvovaginal burning, itching, bleeding, dysuria, nausea, vomiting, pelvic pain, fever or dyspareunia, which provide important information in diagnosis, were collected. Discomfort complaints, history of sexually transmitted infections, contraceptive methods used, sexual intercourse status (in terms of semen allergy), presence of multiple partners, use of over-the-counter medications, use of estrogen-containing contraceptives, antibiotics and antihistamines were examined. We also take care of hygiene. The use of scented soaps and gels, latex condoms, scented pads, and insufficiently clean intimate materials, which can damage vaginal tissue and cause an allergic reaction, were assessed. Vaginal discharge, its amount and color are evaluated to clarify the character of vaginal pathologies.

The study data were evaluated by a computer using the SPSS statistical package program. When analyzing data on continuous data, count and percentage distributions, mean standard deviation and frequency tests were performed.

Results of the study and their discussion. According to data obtained, the average age of the women participating in the study was 20.88 ± 1.52 (18–26) years, only two of them are married. Cleaning the toilet is also important, which can cause a vaginal infection. In the study, 28.9 % of women cleaned the toilet from back to front. 32.6 % prefer synthetic underwear, 46.9 % do not notice the frequency of changing underwear. 5.4 % of participants change pads every 12 hours or daily. Long-term use of tampons and pads can cause irritation and, along with heavy discharge, an unpleasant odor. The study found that vaginal complaints included contact dermatitis (21 %) caused by irritants or allergens. Although erosions and irritations occur in advanced cases, erythema and irritation are observed in milder cases. In both cases itching, erythema, swelling, pain, vulvar lesions are observed.

It should be emphasized that they should change pads no more than eight hours in advance, clean the toilet from front to back, and pay attention to cleaning their hands beforehand. Soap, washing powder, cleaning products, scented toilet paper and powders, which may disrupt the vaginal flora or cause allergies.

As a result of this study, 6.9 % of women use soap, antiseptic solution or wet wipes in case of abnormal discharge. 10.2 % of women use sprays, deodorants and perfumes as deodorants for the perineal area due to unpleasant odor. It was stated that there was no significant difference between normal and abnormal vaginal discharge and soap use. In other words, it has been emphasized that soap use alone is not the only cause of vaginal discharge. Particularly irritating substances used to relieve complaints of abnormal discharge cause delay in treatment and recurrence of infection.

80.7 % of women who are currently experiencing discharge note that they have normal discharge (small amount, clear, odorless), 6.0 % note that it has the appearance of curd cheese, odorless, itchy, and 2.8 % note that they are greenish-yellow in color, has an unpleasant odor and is abundant. Abnormal and abnormal discharge is usually caused by sexual intercourse and occurs after transmitted infections, bacterial vaginosis and vulvovaginal candidiasis.

As a result of infection, the normal flora of the vagina is disrupted and complaints arise.

More than half of the women (60.2 %) went to the doctor with complaints of discharge, and 26.6 % waited until it went away on its own. 13.9 % used traditional methods. It is preferable to use the applications alone or in combination with medical treatment. It seems that some women prefer traditional methods when dealing with genitourinary infections.

Traditional methods were preferred by women; drink the juice of onions, garlic, parsley (14.7 %), placing cotton wool or cloth (11.2 %) in the vagina, onions, parsley, nettles and a It has also been found to reduce community exposure to antibiotics and is anti-infective, safe, and effective [3]. In another study the effects of using a mixture of yogurt and honey as a vaginal cream and clotrimazole cream for the treatment of vulvovaginal candidiasis were compared. Applications such as rinsing the vagina with a decoction of plants such as chamomile (2.5 %), wiping the vagina with vinegar, baking soda or lemon juice (0.9 %) and placing garlic in a chamber (1.8 %).

It should be emphasized that physiological increases occur during ovulation and pregnancy and may also be influenced by diet, sexual activity, medications, hormonal contraception, and stress).

Thus, our study revealed, that the prevalence of abnormal vaginal discharge in young women was 19.3 %. Actually, various parts of the world have different rates of pathogens in vaginal discharge [5].

When treating abnormal vaginal discharge, it is important to identify the causative effect. It has been emphasized that patient education is important to avoid certain irritants and prevent recurrent complaints. It is important to impart education to women from the right sources to relieve symptoms, manage the process correctly, and prevent recurrence of complaints. It is important that health workers provide education to sick and healthy people, both to treat infections and prevent their recurrence, and to enable the individual to learn, support, and guide the process. For example, Shanmugam NP Sr, et al (2023) performed a cross-sectional study about abnormal vaginal discharge, but the authors noted that study had limitations: design allowed us to find only the association and not the causation between the effect and the cause. Owing to the diversified cultural characteristics, this study would have been exceptional if it had been performed in multiple centres to identify the various other causative agents of abnormal vaginal discharge and to initiate appropriate management [11].

There is an increase in complementary and alternative treatment methods used for the treatment of vaginal infections [13]. It has been stated that some alternative treatments have antifungal effects, some restore the vaginal microbial balance and reduce health costs.

Women in the reproductive age range frequently have abnormal vaginal discharge, which has a variety of etiologies. According to Murewanhema G, et al, abnormal vaginal discharge is the second most frequent issue, behind menstrual problems [6]. Over the course of a year, about 1 in 10 women will have vaginal discharge. Each year, an estimated 10 million women visit primary care centres with complaints of excess or abnormal vaginal discharge. Many women who experience vaginal discharge mistreat their condition by taking over-the-counter medications [10, 11, 12].

Education is as important as diagnosis and treatment for vaginal discharge. Especially women of young reproductive age may not notice cycle changes. They should be told that vaginal discharge is normal. Information should be given about factors that may affect the flow [10].

Some investigators revealed co-morbidities, such as diabetes mellitus which was identified to be the most prevalent co-morbidity, observed in 29 (16.6 %) patients. Twenty-one (72.4 %) patients with diabetes mellitus who presented with vaginal discharge were found to have vulvovaginal candidiasis [13]. But we did not assess this side of problems, so, this was the limitation of our study.

Paladin HL, et al, noted that treatment of vulvovaginal candidiasis involves oral fluconazole or topical azoles, although only topical azoles are recommended during pregnancy. The authors showed the different ways of treatment: trichomoniasis is treated with oral metronidazole or tinidazole, and patients'

sex partners should be treated as well; treatment of noninfectious vaginitis should be directed at the underlying cause. Atrophic vaginitis is treated with hormonal and nonhormonal therapies. Inflammatory vaginitis may improve with topical clindamycin as well as steroid application [9]. But women from our study preferred non medicine methods, which are not presented in official guidelines. According to WHO guidelines, which include the updated, evidence-informed clinical and practical recommendations for management of people with symptoms of STIs, patients with of STIs need on special care and treatment. These guidelines include the management of symptomatic infections related to urethral discharge syndrome, including persistent urethral discharge syndrome; vaginal discharge syndrome, including persistent vaginal discharge; anorectal infection; genital ulcer disease syndrome; and lower abdominal pain syndrome. So, WHO recommended to use guidelines for programme managers for STI prevention and control at the national level and the health-care providers at the frontline – primary, secondary and tertiary health care [9]. We suggested that in further studies these recommendations will be take into account.

Conclusion

In the study, the rate of abnormal vaginal discharge among women was 19.3 %. The rate of using traditional methods for vaginal discharge complaints is 14.2 %. Methods used; onion, parsley, nettle drinking it boiled, inserting cotton or cloth into the vagina, drinking herbal teas, and inserting garlic into the vagina. 12.6 % of women using traditional methods stated that the method is effective. It is recommended to evaluate the traditional practices used for genitourinary tract infections, to consider the results such as effectiveness, harm, cost, and to conduct regional and more researches.

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Стаття надійшла 25.05.2023 р.