MAIN CAUSES OF VAGINAL DISCHARGE

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ABSTRACT
Complaints of vaginal discharge are common in primary care settings. Symptoms such as discharge with or without odor, dysuria, itching, or vulvar/vaginal burning are part of a scenario experienced by women of reproductive age. A thorough medical history reporting on the woman's health status, coupled with an effective physical examination with genital evaluation and collection of a sample of the discharge, are essential for establishing an accurate diagnosis and appropriate management. Based on this, the objective is to understand the main etiologies related to vaginal discharge. This study is an expanded summary based on searches in the PubMed, SciELO, Science Direct, and Lilacs databases, using the descriptors "Etiology," "Dysbiosis," "Sexually Transmitted Infections," "Vulvovaginitis," and their respective English equivalents. Thirteen articles published in the last five years and available in full were included, and 45 articles that did not meet the study objective were excluded. Vaginosis and vulvovaginitis with discharge occur when there is a change in the vaginal microbiota, either due to the introduction of a pathogenic microorganism or changes in the vaginal environment that favor microbial proliferation. Early diagnosis of these conditions is crucial to avoid potential negative impacts on the patient's health. Most diagnoses of vulvovaginitis include bacterial vaginosis, vulvovaginal candidiasis, trichomoniasis, and cytolytic vaginosis. Finally, it is important to demonstrate the importance of identifying the possible causes of vaginal discharge in order to propose appropriate therapeutic management and promote women's health and well-being.
Keywords: Vaginal discharge; Women's health; Etiology.

INTRODUCTION

Vaginal discharge is one of the most common complaints among women of reproductive age, varying according to the menstrual cycle and reproductive period due to hormonal changes and the presence of glycogen. Although it is one of the main reasons for gynecological consultations, not all discharge indicates disease or infection. Hormonal, organic, and psychological factors influence vaginal secretion,

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and imbalances can lead to inflammation or infection. Hormonal, organic, and psychological factors influence vaginal secretion, and imbalances can lead to inflammation or infection. The main causes of abnormal discharge include bacterial vaginosis, trichomoniasis, vaginal candidiasis, and cytolytic vaginosis, often associated with infections such as vulvovaginitis and vaginosis (ALVES *et al,* 2021).

Bacterial vaginosis (BV) is a condition that occurs due to an imbalance in the vaginal microbiota, characterized by a reduction in Lactobacillus and an increase in anaerobic bacteria, such as *Gardnerella vaginalis*. This infection is associated with sociodemographic and behavioral factors, such as multiple sexual partners, irregular condom use, and poor intimate hygiene practices (SANCHES *et al.,* 2020).

Vaginal candidiasis is caused by *Candida albicans*, the main fungus responsible for vaginal candidiasis. It is part of the normal vaginal microbiota, but under certain conditions, which are still unknown, it can proliferate excessively, causing infection. Other *Candida* species, such as *glabrata, tropicalis, parapsilosis,* and *guilliermondii*, may also be involved. *Candida albicans* is part of the vaginal microbiota in a commensal form, but for some reason it can proliferate, forming biofilms, which facilitates recurrence of infection (ALVES *et al,* 2022).

Cytolytic vaginosis occurs due to an excessive increase in *Lactobacillus*, caused by a decrease in vaginal pH and cell destruction. Trichomoniasis is a sexually transmitted infection caused by a flagellated protozoan called *Trichomonas vaginalis* (HACISALIHOGLU; ACET, 2021).

The study aims to demonstrate the importance of efficient and correct identification of the possible causes of vaginal discharge in order to propose targeted therapeutic management and a decisive course of action.

METHOD

The study involved the descriptive analysis of scientific articles contained in the PubMED, SciELO, Science Direct, and Lilacs databases. Based on this theoretical foundation, a summary of the main etiologies and s related to vaginal discharge was prepared. For the bibliographic analysis, 13 relevant articles were selected after applying and combining the Health Sciences Descriptors (Decs/Mesh) “Etiology,” “Dysbiosis,” “Sexually Transmitted Infections,” “Vulvovaginitis,” and their

respective English equivalents. Forty-five articles were excluded based on the criteria of not being free, not being available in full, not being from the last five years, and not responding to the proposed objective.

The analysis of these studies included aspects of the research content, information about the authors, such as their educational levels and institutional affiliation, the target audience of the study, and the therapeutic guidelines used.

RESULTS

Regarding the theme, in relation to the etiological profile of vulvovaginitis, aspects of women's health such as the use of contraceptive methods, pregnancy, hormonal fluctuations throughout the phases of the menstrual cycle, use of douches, intimate soaps, and certain medications, such as antibiotics, contribute to the reduction of *Lactobacillus*. These microorganisms are responsible for maintaining the acidic pH of the vagina through the production of lactic acid and hydrogen peroxide, which in turn causes changes in the vaginal pH and the composition of the local microbiota. The production of these elements is crucial to prevent the growth of pathogenic microorganisms. The indicative parameter for normal vaginal health is a significantly higher amount of *Lactobacillus* than other components found in the vaginal environment (ALVES *et al.*, 2021).

Bacterial vaginosis is characterized by an imbalance in the normal vaginal microbiota. This disorder involves a significant reduction or disappearance of *Lactobacillus* and an increase in anaerobic bacteria, especially *Gardnerella vaginalis*. This bacterial species is commonly found in the vaginal microbiota of many healthy women and is responsible for altering the vaginal pH. In women with vaginosis, the bacterial concentration can be much higher, becoming almost ubiquitous due to its high cytotoxicity and ability to adhere to the epithelium compared to other bacteria. In addition, *Gardnerella vaginalis* has a greater propensity to form biofilms, which facilitates the attachment of other bacterial species (SANCHES *et al.,* 2020).

The etiology of trichomoniasis involves infection by the protozoan *Trichomonas vaginalis*, a flagellated unicellular organism that is transmitted mainly through sexual contact. This pathogen adheres to the vaginal mucosa, where it

triggers an inflammatory response that can result in a yellow-green discharge with a foul odor (ARAÚJO *et al*., 2021).

Among the most common vulvovaginitis, vulvovaginal candidiasis stands out, an acute inflammatory condition characterized by an infection of the genital mucosa, usually caused by the opportunistic yeast *Candida albicans*. This yeast can go from a commensal microorganism, which normally inhabits the vagina, to an aggressive pathogen. Patients with candidiasis may present clinical symptoms such as dyspareunia, leukorrhea, and pruritus, ranging from mild to severe, or remain asymptomatic (ALVES *et al.*, 2022).

Cytolytic vaginosis, on the other hand, presents with an increase in *Lactobacillus*, squamous cell erosion, absence of leukocytes, and cytolysis. There is a whitish discharge, similar to the secretion generated by candidiasis, a vaginal pH between 3.5 and 4.5, hyperemia, and vulvovaginal burning (HACISALIHOGLU; ACET, 2021).

CONCLUSION

Research on vaginal discharge and its etiologies demonstrates that, in order to establish an assertive therapy, it is imperative to recognize the etiological agents that cause the symptoms and their correlation with the pathologies that affect the female population. The studies analyzed reveal that each complaint must be screened using clinical criteria and laboratory tests before any diagnostic hypotheses and conduct are established. In this study, it was noted that, in order to establish a better syndromic approach, it is necessary to study all aspects of conditions that affect female genital health, especially when it comes to the symptom of discharge.

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