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Original Research Article

Study of the causes of vaginal discharge among sexually active females in age group of 20-45 years: A hospital based study in B.P.S. Government Medical College for Women, Khanpur Kalan, District Sonipat, Haryana, India

Usha Kataria[1*], Sunita Siwach[2], Dinesh Chhillar[3]

[1]Assistant Professor, Department of Dermatology, BPS Govt. Medical College for Women, Haryana, India

[2]Assistant Professor, Department of Obstetrics and Gynecology, BPS Govt. Medical College for Women, Haryana, India

[3]Resident, Department of Forensic Medicine, Pt. BDS. PGIMS, Rohtak, India

*Corresponding author email: ushachillar@gmail.com

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Abstract

Background: Vaginal discharge is a common symptom of genital infection in woman. Identifying its source can be challenging as large number of pathogens causes vaginal and cervical infection and several other infections may coexist.

Aim: To find out the possible causes of vaginal infection in sexually active woman.

Material and methods: One hundred sexually active females in the age group of 20-45 years with complaints of vaginal discharge were selected for the study. A detailed clinical history and a thorough clinical examination were carried out. After making the clinical diagnosis appropriate test for diagnosing candidiasis, trichomoniasis, gonorrhea and bacterial vaginosis were done.

Results: The present study showed 34% incidence of bacterial vaginosis, 30% vulvo-vaginal candidiasis, 14% trichomoniasis, 2% gonorrhea, 2% normal physiological discharge and 18% non specific urogenital infections.

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Conclusion: Every patient, who complains of vaginal discharge, should be thoroughly interrogated, examined and investigated properly.

Key words

Vaginal discharge, Vaginitis, Genital infection, Sexually active.

Introduction

Vaginal discharge is a common clinical problem with many etiologies. In the past vague terminology such as “non specific vaginitis” was often used to describe conditions that produce vaginal discharge. Recently, careful definitions of clinical syndrome and increased knowledge about the specific agents that cause genital infection in woman have made more precise diagnosis possible [1]. The vaginal discharge may be physiological or pathological [2]. Normal vaginal floras (lactobacilli) colonize the vaginal epithelium and may have a role in defense against infection. They maintain the normal vaginal pH between 3.8 and 4.4. The quality and quantity of vaginal discharge may alter in the same woman in cycles and over time. Each woman has her own sense of normality and what is acceptable or excessive for her [3]. The squamous epithelium of the vagina and ectocervix is susceptible to infection with Candida species and Trichomonas vaginalis and the columnar epithelium of the endocervix is susceptible to infection with Neisseria gonorrhoeae and Chlamydia trachomatis. Herpes simplex virus may infect both types of epithelium [4]. There are numbers of pathogens causing vaginal discharge, identifying its source is challenging. Vaginitis caused by bacteria, fungi or protozoa can be associated with altered vaginal discharge and odor. Bacterial vaginosis is characterized by foul smelling, copious discharge. Vulvo-vaginal candidiasis is characterized by curdy white discharge. Vaginal trichomoniasis is associated with greenish frothy discharge. Differential diagnosis of these infections requires a detailed history, local examination and microscopy of vaginal discharge [5].

Aim and objectives

To study the various causes of vaginal discharge among sexually active females of age group 20-45 years.

Material and methods

The present study was carried out to investigate the incidence of various causes of vaginal discharge. One hundred sexually active females in the age group of 20-45 years with complaints of vaginal discharge attending outdoor patient department of Obstetrics and Gynecology and Skin-Venereal Diseases of B.P.S. Government Medical College for women, Khanpur Kalan, Sonepat were selected for the study.

Inclusion criteria

Non pregnant, sexually active females (20-45 years) were included in the study.

Exclusion criteria

Females presented with pelvic inflammatory diseases (PID) were excluded from the study.

A detailed clinical history and a thorough clinical examination were carried out. After making the clinical diagnosis appropriate test for diagnosing candidiasis, trichomoniasis, gonorrhea and bacterial vaginosis were done. Local examination with the help of Cusco’s speculum was carried out to visualize vagina and cervix. The amount, color, character and smell of the vaginal discharge were noted. The pH of the discharge was noted. The discharge was

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collected from, upper part of the posterior fornix and lateral vaginal walls to make wet mount and KOH preparation and was examined under microscope. A study of vaginal swabs was carried out as under.

For Candidiasis

- **KOH preparation:** A drop of 10% KOH was added to the vaginal secretions taken on a clean glass slide and mounted with a cover slip. Candida was identified as highly refractile budding yeast cells.
- **Gram's stain:** Vaginal smear was examined showing gram positive pseudo hyphae with yeast cells.

For Trichomonas vaginalis

Wet smear - the discharge from the posterior fornix was taken with sterilized cotton swab and mixed with a drop of normal saline taken on clean glass slide and mounted with cover slip. The presence of flagellate organisms suggested the Trichomonas vaginalis and the presence of clue cells (vaginal epithelial cell with granular surface and blurred margins because of attached bacteria) suggested bacteria vaginosis.

Gram's stained smear of discharge from the cervix and urethra were examined under microscope for intra cellular gram negative diplococci (Neisseria gonorrhoeae).

Results

Demographic profile of the patient showed 100% patients were married and unemployed, 88% patients were from rural background. 70% patients were in the age group 20-30 years. It showed that the problem was more common in 20-30 years of age group. Only 4% were in the age group 41-45 years. Majority (44%) of the patient had primary education, 18% were illiterate, 28% were secondary education, 6% were graduate and only 4% were post graduate. It appeared that the less educated patients had less practice of hygiene etc., hence developed the illness. There were past medical history of diabetes mellitus in 4% patients, past history of chronic illness were seen in 4% cases, 10% patients had recurrent vaginal discharge. History of use of antibiotic in 12%, oral contraceptive in 8%, and use of douches/pessary were observed in 6% patients. The present study showed 34% incidence of bacterial vaginosis, 30% vulvo-vaginal candidiasis, 14% trichomoniasis, 2% gonorrhea, 2% normal physiological discharge and 18% non specific urogenital infections. The cases with complaint of vaginal discharge and other associated symptoms with pH more than 4.5 and Gram's smear showing polymorphonuclear leucocytes but with no other findings were grouped under non specific urogenital infections. This accounted for 18% of cases in the present study. Patient had pruritis (66%); foul smelling odor (86%); burning micturition (42%); dyspareunia (36%). Maximum number of patients with bacterial vaginosis had a complained of foul smelling discharge (84%), while in cases of vulvo-vaginal candidiasis; pruritis (90%) was the most common symptom. All patient with trichomoniasis complained of pruritis, odor, burning micturition, dysuria, dyspareunia along with vaginal discharge. Pruritis was absent in patient of gonorrhea. Urinary complains were more as compared to other symptoms in cases grouped under non specific urogenital infections.

Discussion

The present study showed a maximum incidence of bacterial vaginosis (34%) followed by vulvo vaginal candidiasis (30%). It was in an agreement with the findings of Fox, et al. [1]. The incidence of bacterial vaginosis had compared favorably to that of Ries [6] (30.35%); Mahadani, et al. [7] (44.30%). The incidence of vulvo vaginal

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candidiasis in our study had compared favorably to that of Ries [6] (20.25%); Kamara, et al. [8] (30.7%). The incidence of gonorrhea in our study had compared favorably to that of Alary, at al. [9] (5.1%). The incidence of trichomoniasis was compared favorably with Malla N, at el. [10] (10%).

Patient with vulvo-vaginal candidiasis often present with itching, burning, curdy white discharge, vulvar or vaginal erythema, painful intercourse and stinging on urination. Bacterial vaginosis is characterized by musty or fishy vaginal odour and a thin, white watery vaginal discharge. Patients with trichomoniasis usually complain of profuse, yellow green discharge and vaginal or vulvar irritation with complains of vaginal odour, itching, painful intercourse and painful urination [6].

Conclusion

It is concluded that every patient, who complains of vaginal discharge, should be thoroughly interrogated, examined and investigated properly. Most of the time patient is not aware of the normal physiological discharge, so patient should be counseled regarding that and pathological discharge should be treated completely and barrier protection of partner is advised.

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