Research Article

Comparative study of gynecological vaginal discharge with special reference to trichomonas vaginitis, candidial and bacterial infections

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Abstract

the term vaginitis is the diagnosis given to Women presenting complain of abnormal vaginal discharge with vulvar burning, irritation or itching. The leading causes of symptomatic vaginal discharge are Bacterial vaginosis, Candiasis Trichomonas vaginalis Simple, rapid and inexpensive methods like PH estimation , wet mount, KOH mount, amione test, gram staining are helpful in evaluating Symptomatology of vaginal infections.

Keywords: Vaginal discharge, Organism, Microscopy, PH.

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INTRODUCTION

The term vaginitis is the diagnosis given to women who present complaining of abnormal vaginal discharge with vulvar burning, irritation, or itching. The leading causes of symptomatic vaginal discharge are Bacterial vaginosis, Candidiasis, and trichomoniasis. Bacterial vaginosis, trichomoniasis, and vulvovaginal Candidiasis are the most common infectious causes of vaginitis. ***Bacterial vaginosis*** (BV) is a disorder of unknown etiology, characterized by a foul smelling vaginal discharge, loss or reduction of the normal vaginal *Lactobacilli*, and overgrowth of other anaerobic bacteria. Bacterial vaginosis (BV) is a poly microbial disease, and although its association with *Gardnerella vaginalis* remains controversial, but now has been largely accepted, 6 it is considered as the most common type of infectious vaginitis, accounting to 40-50% of cases. Candida genital infection is the leading cause of fungal vulvovaginitis. Pregnancy, broad-spectrum antibiotic use, diabetes mellitus, and immunodeficiency have been described as important risk factors for Candida genital infection; however, asymptomatic microorganism colonization can occur in 25 to 50% of the cases.9 ***Trichomonas vaginalis*** was first discovered in 1836 by European physician Alfred Donné. It is a single, spherical, motile, flagellated parasite with a barbed tail (called an axostyle) that resides in the urogenital tract of humans. Trichomonads are anaerobic, reproduce via binary fission, and require carbohydrates (i.e. vaginal glycogen) as an energy source. Symptoms and signs of TV infection may be attributed to TV attachment to vaginal epithelial cells through its barbed tail, expression of a highly immunogenic surface This study aims to know Bacterial vaginosis, T. vaginalis and C. albicans infections were among the women who complained of vaginal discharge by performing simple microscopic examination, which is an easy, cheap and less time consuming procedure. The diagnosis can be a guide to provide appropriate therapy needed for the patients. The findings will also
provide a clue for further investigations.

AIMS AND OBJECTIVES

1. To study incidence of Bacterial vaginosis, candidial and trichomonial vaginitis among the study population.

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2. To analyze the clinical mode of presentation and correlate with microscopic findings.
3. To use simple, rapid and inexpensive methods like pH estimation, wet mount, KOH mount, amine test, gram staining in evaluating symptomatology of vaginal infections.
4. To study vaginal pH in relation to Bacterial vaginosis, trichomonial and candidial vaginitis.

MATERIALS AND METHOD

Descriptice Study was done, to Compare Vaginal Discharge of trichomonas Vaginalis, Candidial and bacterial infections. Prospective Study was done in gynecology OPD at our hospital Total 116 cases were included with Vaginal discharge for variable time with or without vaginal discomfort, pruritus, burning sensation written informed consent was taken the pooled vaginal discharge was assessed for colour, consistency, volume, odour, adherence to vaginal walls with aspectic precautions. Swab taken from posterior forniox of vaginal with cotton tip sticks to prepare a smear for gram's staining. PH was measured using indicator papers. Amine test was performed by mixing 10 % KOH for amine odour. Wet mount was performed by adding drop of discharge to drop of normal saline. And observed under low power and high power microscope to see motile trichomonas, clue cells, pseudohyphae Analysis was done according to distribution of cases corresponding to pathogens. Ethical approval by institutional Ethical Committee was taken.

METHODOLOGY

Place of study

This study was done at Obstetrics and Gynecology OPD of our medical college.

Duration of the study

Total study period was from October 2011 to October 2013.

Study design

The study was designed as a Descriptive study.

Inclusion criteria

Patients, who were presented with vaginal discharge for a variable period of time, with or without associated vaginal discomfort, pruritus and burning sensation.

Exclusion criteria

Patients who had features of cervicitis, in the form of cervical discharge or hypertrophied inflamed cervices were excluded. Pregnant patients having vaginal discharge were excluded from study

Table 1: Distribution of cases according to pathogens aenmea

Findings	No. of Cases	Percentage
Bacterial vaginosis	40	34.48%
Candidiasis	21	18.10%
T. Vaginailis	9	7.75%
T. Vaginailis+Bacterial vaginosis	3	2.59%
Negative	43	37.08%
Total	**116**	**100%**

Majority of subjects (n=43, 37.08%) had negative findings for any pathogen, 34.48% of cases were found to have Bacterial vaginosis, 18.10% cases had Candidiasis ,7.75% of cases were having vaginitis with T.vaginalis and 2.59% of the cases had co-infection with Bacterial vaginosis and T.vaginalis

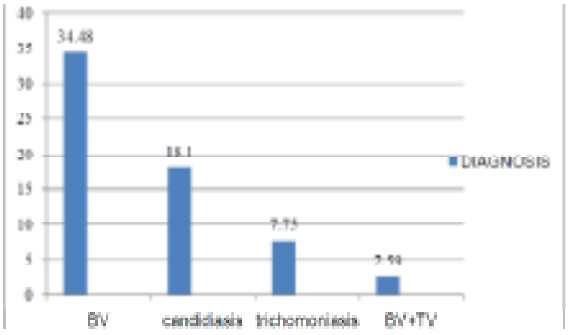


Table 2: Distribution of vaginal pH

pH	Total	<4.9	4.9-5.4	>5.4
Bacterial vaginosis	40	Nil	5 (12.5%)	35(87.5%)
Candidiasis	21	15(71.43%)	6(28.57%)	Nil
Trichomoniasis	9	Nil	3(33.33%)	6(66.66%)

87.5% (n=35) diagnosed as Bacterial vaginosis were having vaginal pH>5.4. Majority of the cases diagnosed as vaginal Candidiasis (71.42%, n=15) showed pH <4.5 and 88.88% of the cases having trichomoniasis showed vaginal pH >5.4.

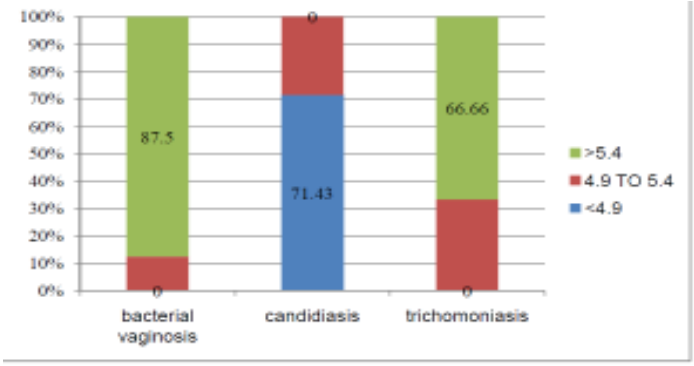


Table 3: Distribution of malodor among different infections

	Total	Malodor	Percentage
Bacterial vaginosis	40	32	82.5%
Vaginal Candidias	21	3	14.2%
Trichomoniasis	9	4	44.44%

Malodor was noted in 82.5% of cases having Bacterial vaginosis, 44.44% of cases having trichomoniasis were having foul smelling vaginal discharge and only 14.2% of cases having vaginal Candidiasis were found to have malodor.

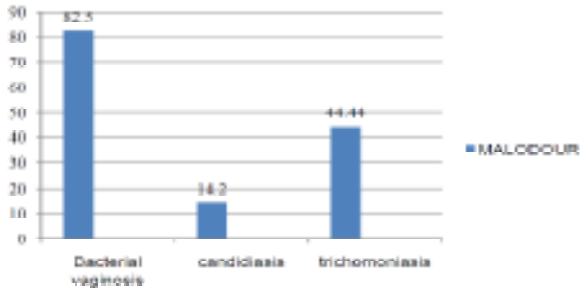
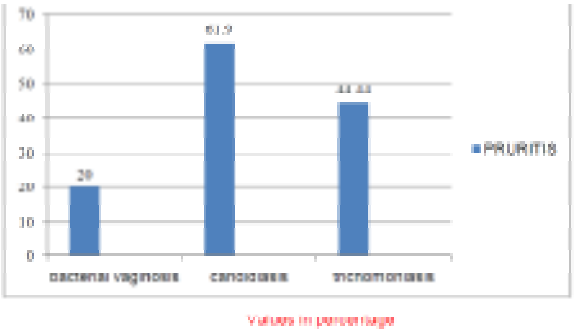


Table 4: Distribution of pruritis among different infections

	Total	Number	Percentage
Bacterial vaginosis	40	8	20%
Candidiasis	21	13	61.90%
Trichomoniasis	9	4	44.44%

Pruritis was mainly associated with vaginal Candidiasis (61.9%), 44.44% of cases of trichomoniasis were found to have itching as main complaint



RESULT

One hundred and sixteen women who presented with vaginal discharge were studied for the presence of Bacterial vaginosis,T.vaginalis and C.albicans infection.

- BV was found in 40 cases, the incidence being 34.48%
- T.vaginalis was found in 9 cases, the incidence being 7.75%
- Candidiasis was found in 18.10% of cases.
- There were three cases with mixed infection of T.vaginalis and Bacterial vaginosis.
- No pathogen was identified in 37.08% of cases i.e. 43 number of cases.
- RTI was mainly found in age group 21-30 yrs i.e. 56.89%.
- BV was associated with foul smelling, thin vaginal discharge.
- In cases of T.vaginalis infection, vaginal discharge was associated with itching, malodour, dysuria and dyspareunia.
- In case of C.albicans infection vaginal discharge was white thick and not foul smelling.
- History of pruritis was more common in C.albicans infection.
- Vaginal pH was found to be >5 in majority of cases of BV and T.vaginalis as against majority of canididiasis showed normal vaginal pH <5.

CONCLUSIONS

For definitive diagnosis of vaginal discharge, per speculum examination and microscopy is must and rather than going for syndromic approach to treat vaginitis, it is better to diagnose vaginitis under microscope and treat accordingly.

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