

An Observational Assessment of the Lower Genital Tract Infections in Women Complaining of White Discharge Per Vaginum

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Abstract

Aim: The aim of the present study was to evaluate the lower genital tract infections in women complaining of white discharge per vaginum.

Methods: The present study was conducted in the Department of obstetrics and gynecology, Patna medical College and Hospital, Patna, Bihar, India. There was total 200 patients in the study for a period of one year. These were the patients who complained of abnormal vaginal discharge as their main or subsidiary symptom.

Results: The present study showed that 26-35 years (45%) was the most common age group amongst study population followed by 18 to 25 years (30%), 36- 45 years (20%) and Above 45 years (5%). The study showed that 35% patients had white discharge with Abdomen Pain followed by Only White Discharge 23%. In the present study, out of 200 cases 80 were positive for bacterial vaginosis, i.e., 40% of study population. In the present study, majority of the patients were in the age group 26-35 years in vaginal infections.

Conclusion: The most ideal approach is the microbiological approach for the etiological diagnosis of symptomatic vaginal discharge. The most common cause of abnormal vaginal discharge is Bacterial vaginosis followed by Candidiasis and Trichomoniasis.

Keywords: Bacterial vaginosis, Candidiasis, Trichomoniasis, Vaginal discharge

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Introduction

Vaginal discharge in the reproductive age group is the most common complaint. Encountered everyday both by gynaecologists and general practitioners. Symptomatic vaginal discharge is caused by inflammation due to infection of the vaginal mucosa. It occurs in 1-14% of all women in the reproductive age group and is responsible for 5-10 million OPD visits

per year throughout the world. The prevalence of vaginal discharge in India is estimated to be 30%. [1] Abnormal vaginal discharge is the second most common problem after menstrual disorders. [2] One in ten women will present with vaginal discharge in the course of a year. [3] Almost every fourth woman in gynaecological outpatient department has the complaint of vaginal discharge. [4]

Abnormal vaginal discharge also predisposes to significant morbidity in the form of pelvic inflammatory diseases, infertility, endometriosis, cuff cellulitis, urethral syndrome, pregnancy loss, preterm labour, to enumerate a few. Most common cause of symptomatic vaginal discharge is Bacterial vaginosis (33-47%) followed by Candidiasis (20-40%) and Trichomoniasis (8-10%). [5-7] These three conditions account for 90% of all etiologies of abnormal vaginal discharge. Multiple infections can also coexist. [6]

Discharge per vaginum is the most common complaint among women of reproductive age group. [8] 90% of infectious causes of vaginal discharge include bacterial vaginosis followed by candidiasis and trichomoniasis. Other infectious causes include Chlamydia trachomatis and Neisseria gonorrhoeae. [9] The common causes of physiological discharge are use of contraceptives, menstruation and pregnancy. [10] The associated symptoms produced by pathological discharge include itching, burning sensation, offensive odor and dyspareunia. The management of vaginal discharge is often based on syndromic approach. The main disadvantage of this approach is misdiagnosis and injudicious treatment with multiple antimicrobials leading to development of drug resistant strains and economic burden on the patient. Simple laboratory tests like gram staining, wet mount, whiff test etc. can help in establishing the etiological agent and institution of the appropriate therapy.

Reproductive Tract Infections (RTIs) have an adverse impact on women health such as chronic vaginal discharge, chronic backache, pelvic inflammatory disease, infertility, ectopic pregnancy, postpartum sepsis and post aborted sepsis, spontaneous abortion /fetal wastage, prematurity or IUGR, Congenital / perinatal infection and CA cervix. The

emergence of spread of HIV infections had major impact on management of and control of STIs. Hence WHO include STIs in second phase of National Family Health Scheme in collaboration with National AIDS control program 1999. [11]

The aim of the present study was to evaluate the lower genital tract infections in women complaining of white discharge per vaginum.

Materials and Methods

The present study was conducted in the Department of Obstetrics and Gynaecology, Patna medical College and Hospital, Patna, Bihar, India. There was total 200 patients in the study for a period of one year. These were the patients who complained of abnormal vaginal discharge as their main or subsidiary symptom.

Nugent score criteria use for diagnosis of Bacterial Vaginosis. Score 7 or above is consider as positive for Bacterial Vaginosis.

Inclusion Criteria

1. Female complaining of white Discharge per vaginum.
2. Female more than 18 years with sexually active status.
3. Female with other complain but found white discharge per vaginum.

Exclusion Criteria

1. Pregnant women

Patient fulfilling eligibility criteria were examined in OPD and collected white discharge swabs sent for microscopy, gram staining and wet mount study. Patients were given treatment in same visit as per WHO syndromic approach in association with NACO.

Data was collected in predesign excel data sheet format and analysis of data done using statistical software.

Results

Table 1: Age distribution amongst study population

Age Group	N	%
18 to 25 years	60	30
26- 35 years	90	45
36-45 years	40	20
Above 45 years	10	5
Total	200	100

As seen in the above table, 26-35 years (45%) was the most common age group amongst study population followed by 18 to 25 years (30%), 36- 45 years (20%) and Above 45 years (5%).

Table 2: Clinical features amongst study population

Clinical features	N	%
Only White Discharge	46	23
White discharge with Pruritus Vulva	44	22
White discharge with Abdomen Pain	70	35
White discharge with Burning micturition	40	20

The study showed that 35% patients had white discharge with Abdomen Pain followed by Only White Discharge 23%.

Table 3: Diagnosis among study population

Diagnosis	N	%
Bacterial vaginosis	80	40
Candidiasis	20	10
Bacterial vaginosis and candidiasis	10	5
Trichomoniasis	0	0
Not any infection	90	45

In the present study, out of 200 cases 80 were positive for bacterial vaginosis, i.e. 40% of study population.

Table 4: Comparison of age group with different vaginal infections amongst study population

		Bacterial Vaginosis(B)	Candidiasis	BV+C	Total
Age Group	18-25 years	30 (28.57)	12 (34.28)	5 (33.34)	47 (30.32)
	26- 35 years	60 (57.14)	13 (37.14)	7 (46.66)	80 (51.61)
	36- 45 years	20 (19.04)	9 (25.71)	3 (20)	32 (20.64)
	More than 45 years	5 (4.76)	1 (2.85)	0	6 (3.87)
Total		105	35	15	155

In the present study, majority of the patients were in the age group 26-35 years in vaginal infections.

Discussion

Discharge per vaginum is a common complaint among women in the reproductive age group. The discharge

may be physiological or pathological. The pathogens associated with vaginal discharge include bacteria, fungi, viruses and protozoan parasites. The common bacterial agents include *Neisseria gonorrhoeae*, *Gardnerella vaginalis*, fungi include *Candida* species and the protozoa *Trichomonas vaginalis* and Herpes

simplex virus. [12] The percentage of etiological agents varies with geographical location, education, personal hygiene, economical status. Bacterial vaginosis accounts for approximately one-third of vulvo-vaginal infections. It is a polymicrobial syndrome and the causative agents include Gardnerella vaginalis, Mobilincus, Bacteroides and Mycoplasma hominis. [13] It is characterized by profuse, malodorous discharge and associated with severe adverse outcomes like preterm birth, pelvic inflammatory disease and high risk of acquiring HIV infection. [14]

Vaginal candidiasis, which is characterized by curd like discharge and pruritis, commonly associated with diabetes, pregnancy and prolonged use of antibiotics. Non albicans Candida is being more often isolated from these cases in the recent times which are often resistant to azole group of drugs. [15-17] Patients with trichomoniasis, a sexually transmitted disease present with copious yellow or green frothy discharge. [17]

In the present study, out of 200 cases 80 were positive for bacterial vaginosis, i.e. 40% of study population, similar to Gupta et al., 2002 [18] who reported cases of bacterial vaginosis as 44.6% and study by Rekha et al. 2010 [19] who reported cases of bacterial vaginosis as 47%. Study conducted by Shazia Khan et al in 2009 found 28% case which is comparatively lesser than present study. [20] In the current study, patient complaining of white discharge with Pruritus Vulva was 44 (22%) of study population similar with Murugesan M et al. who found white discharge with Pruritus Vulva in 23.64% of study population. [21]

In the study, out of 200 patients complaining of white discharge with pain in Abdomen were 70 (35%) of study population while in Murugesan M et al., it was observed 56.36% which was more than present study. [21]

Reproductive health has gained importance recently as reproductive tract infections, if not treated cause morbidity such as recurrent urinary tract infections, dyspareunia, menstrual irregularities, infertility, chronic pelvic pain, ectopic pregnancy, abortion, preterm labour, PROM, stillbirth, neonatal deaths, transmission of HIV infection and even maternal mortality. [22] Gynecological infections, if not diagnosed and treated in time may lead to severe or irreversible complications. Due to changing microbiological profile of infection and sensitivity of microorganisms and emergence of β -lactamase and methicillin resistant pathogen and resistance to Azole group of drugs in non albicans is a major problem throughout the world in various clinical infections including Gynecological infections. Early microbiological diagnosis will help to plan accurate, appropriate and effective therapy. [23,24]

Conclusion

The most ideal approach is the microbiological approach for the etiological diagnosis of symptomatic vaginal discharge. The most common cause of abnormal vaginal discharge is Bacterial vaginosis followed by Candidiasis and Trichomoniasis. As abnormal vaginal discharge is one of the most common complaints in the reproductive age group, this study was undertaken to know the most common causes like Bacterial vaginosis, Candidiasis, Trichomoniasis both clinically and microscopically. Microbiological diagnosis is the ideal approach for etiological diagnosis of vaginal discharge. Nugent scoring is the gold standard test for diagnosis of Bacterial vaginosis. In a resource constrained setting, at least a clinical diagnosis based on simple microscopy, pH and amine test with WHO algorithms to be made prior to treatment.

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