

Clinical, Epidemiological Analysis of Vaginal Discharge and to Establish Quick Etiopathological Diagnosis in OPD SettingSangeeta Gupta Prasad¹, Ankita Singh², Ishita Sharma³¹Associate Professor, Dept of Obstetrics & Gynecology, American International Institute of Medical Sciences, Udaipur.²Associate Professor, Dept of Obstetrics & Gynecology, American International Institute of Medical Sciences, Udaipur³Assistant Professor, Dept of Obstetrics & Gynecology, American International Institute of Medical Sciences, Udaipur

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Abstract**Background:** One of the commonest problem encountered in women in reproductive age group is vaginal discharge. The aim is to gain knowledge about the clinical, socio-epidemiologic profile and to establish a quick etiopathogenesis in OPD of a tertiary care centre.**Method:** A total of 200 women were enrolled in this study, conducted over a period of 1 year at American International Institute of Medical Sciences, Udaipur. Information regarding the sociodemographic profile was obtained through pre-structured questionnaire. For quick cytological diagnosis, samples taken from vaginal fornices with 2 dry cotton tipped swabs were examined in OPD using wet mount saline microscopy.**Result:** Maximum incidence of vaginitis is in the age group 21-30 years (121/61%), more common in multipara (88/44%). Clinical and cytological studies show highest incidence of bacterial vaginosis (104/ 54%). Average perception regarding the aetiology, infective route, ill effects, and preventive methods were noted.**Conclusion:** Combining the clinical symptoms with the cytological studies increases the diagnostic accuracy. Information about the socio-demographic profile is essential in formulating health policies.**Keywords:** Vaginal Discharge, Bacterial Vaginosis, Candidiasis, Trichomoniasis.

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Introduction

One of the commonest complaints in reproductive age women is vaginitis. A diverse spectrum of pathogenic organisms like bacteria, candida and trichomonas are responsible for vaginitis. 1-14% of women in reproductive age group suffer from vaginitis and prevalence rate in India is approximately 30% [1]. In India it is known by different names like safed panni,

dhatu or swed pradar [2]. Vaginitis is basically the inflammation of vagina, presenting with symptoms like abnormal discharge, malodourous discharge and vulval itching [3]. Multiple infections can lead to vaginitis, but 3 conditions Bacterial vaginosis, candidiasis and trichomoniasis accounts for majority of cases. Bacterial vaginosis being the commonest.

A presumptive diagnosis based on discharge is often inaccurate, resulting in treatment mismanagement. Hence, combining the clinical and cytological method makes the diagnosis of vaginitis more accurate. Vaginitis if left untreated predisposes to PID, infertility, endometriosis, preterm labour, pregnancy loss and increased rate of STD.

Vaginal discharge in women has an emotional as well as a physical component. Many women refrain from seeking medical help because of ignorance, social stigma, and hesitation. All this negatively impacts her physical and mental health.

The present study was conducted to establish a quick clinic- etiological diagnosis of vaginitis in an OPD setting, the socio-demographic pattern and cognition regarding the harm, risk factors and treatment of vaginitis.

Method: prospective study conducted at American International Institute of Medical Sciences gynae OPD. Study period was 1 year. 200 females of reproductive age group attending the obs & gynae OPD with complaints of vaginal discharge and associated symptoms were enrolled. Detailed history, clinical examination, information regarding socio-demographic profile, characteristic of

discharge and perception regarding the cause, ill effects, preventive measures were recorded through a pre-structured questionnaire. P/S examination was done, and samples were obtained with 2 dry cotton-wool tipped swabs from posterior fornices. Wet mount saline microscopy of these samples was done.

Inclusion criteria:

1. Age group 18-50 years
2. Married non- pregnant female
3. Complaining of vaginal; discharge or associated symptoms.

Exclusion criteria:

1. Age <18 years and > 50 years
2. Unmarried female
3. Pregnant female
4. Menstruating female
5. Recently biopsied or operated cervix
6. Clinically obvious carcinoma or ulcer

Presence of clue cells was suggestive of bacterial vaginosis, motile, oval flagellated protozoa confirmed trichomoniasis while presence of hyphae were suggestive of candidiasis.

The statistical data were analysed, and result was presented in percentage.

Result: 200 women were enrolled in this study over a period of 1 year.

Table 1: Age distribution

Age	Number of women	Percentage (%)
18-20	6	3
21-30	124	62
31-40	54	27
41-50	16	8

Majority of women belonged to age group of 21-30 years.

Table 2: Parity distribution

Parity	Number of women	Percentage (%)
Nulliparous	42	21
Primipara	70	35
Multipara	88	44

More women in multipara (88/44%).

Table 3: Socio-demographic characteristics

Parameter	Number of women	Percentage (%)
Educational status		
Illiterate	22	11
Primary	10	5
More than primary	108	54
Graduate	60	5
Occupation		
Employed	30	15
Housewife	160	80
Students	10	5
Marital status		
Married living together	170	85
Married but separated	20	10
Divorced	6	3
Widow	4	2

Socio-demographic data was obtained through pre-structured questionnaire. Majority of women received more than primary education (168/84%), most of them were housewives (168/80%) and married (170/85%).

Table 4: Clinical presentation

Symptoms	Number of women	Percentage (%)
Vaginal discharge	176	88
Genital itching	84	42
Dysuria	48	24
Low backache	10	5
Dyspareunia	14	7

Vaginal discharge was the commonest presentation (176/88%). Rest of the women complained of itching vulva, burning urination and combination of symptoms.

Table 5: Local and P/S findings

Findings	Number of women	Percentage (%)
Vaginal discharge	200	100
Skin excoriation and vulval swelling	48	24
Pain during vaginal examination	64	32

In 88% women the presenting symptom was vaginal discharge, but 100% women were found to have vaginal discharge. On P/S, vulval swelling due to genital itching was present in 24% and pain during vaginal examination, indicative of inflamed vagina was seen in 32% women.

Table 6: Nature of discharge

Parameter	Number of women	Percentage (%)
Quantity		
Scanty	156	78
Profuse	44	22
Consistency		
Thick white	48	24
Thin	64	32
Mucoid	16	8
Frothy	72	36
Colour		

Clear	124	62
Curdy white	64	32
Greenish yellow	10	5
Brownish	2	1

In majority of cases, the discharge was scanty (78%), thin (32%) and clear (62%). All these features go in favour of bacterial vaginosis.

Table 7: Cytological diagnosis

Diagnosis	Number of women	Percentage
Bacterial vaginosis	104	54
Candidiasis	40	20
Trichomoniasis	12	6
Undiagnosed	40	20

Cytological diagnosis confirmed our clinical diagnosis. Majority of patients had Bacterial vaginosis (54%), followed by Candidiasis (20%) and Trichomoniasis (6%). In 20% of the wet mount slides, no conclusion could be made.

Table 8: Knowledge regarding the cause of vaginal discharge

Cause	Number of women	Percentage (%)
Normal feature	40	20
Warm food	24	12
Curse of God	14	7
Bad blood in body	22	11
Infection	100	50

Majority of the women (50%) attributed it to infection while 20% of the women consider it to be a normal feature.

Table 9: Knowledge regarding infective route and ill effects

Parameters	Number of women	Percentage (%)
Infective route		
Bad hygiene	164	82
Unsafe sex	150	75
Iatrogenic transmission	40	20
Ill effects		
Related to childbirth	80	40
Pelvic inflammation	64	42
Infertility	48	24
Chronic pain abdomen	90	45
Cervical cancer	110	55

82% women correlated vaginitis with bad hygiene and 75% women were aware that unsafe sex could be the reason for vaginitis. Most of the women had average knowledge regarding the ill effects.

Table 10: Knowledge regarding methods of prevention

How to prevent	Number of women	Percentage (%)
Maintain genital hygiene	160	80
Using condoms	80	40
Single sex partners	68	34
Timely treatment	180	90

Majority of the women (90%) were in favour of timely treatment. Maintaining genital hygiene (80%), using condoms (40%) and having single sex partners (34%) were preventive measures.

Discussion:

our study analysed the clinical and etiological presentation of vaginitis in women of reproductive age group and throws light on the knowledge, attitude, and perception of women towards vaginal discharge. [4] Early and quick diagnosis in OPD setting is essential for initiating targeted treatment and thus preventing its sequelae. Data and information about the knowledge aspect helps in formulating evidence-based health policies [5]. Our study revealed highest incidence of vaginitis (62%) in 21-30 years age group, which could be related to peak sexual activity in this group. Similar findings were quoted in study conducted by Dipak Bhargava et al, which showed 56.1% incidence in 20-29 years and lowest incidence in >40 years age [6]. Vaginitis was more common in multipara (44%) while in primipara it was 35%. Study by Kinar CK et al showed that 30.5% multiparous were affected.

As regards disease characteristics, commonest symptoms was vaginal discharge (88%) followed by genital itching (42%) and dysuria in 24% women. Sivaranjini R et al, Vargese et al [7,8] reported similar disease characteristics. 62% of women in our study were found to have thin, clear discharge (S/O Bacterial vaginosis) as opposed to thick curdy discharge in 32% (S/O Candidiasis) and greenish yellow discharge in 5% (S/O Trichomoniasis). All these observations signify preponderance of BV over Candidiasis and Trichomoniasis. This was further confirmed by cytological studies which showed BV in 54%, Candidiasis in 20% and Trichomoniasis in 6%. In contrast to our study, study by Kiran et al reported highest incidence of Candidiasis

(59.1%) [4]. Another study by Rekha et al showed prevalence of BV, Candidiasis and trichomoniasis as 47%, 10% and 3% respectively [9]. So, combining the clinical symptoms with wet mount studies improves the sensitivity of clinical diagnosis.

Assessing the cognition of women regarding the cause, infective route, ill effects, and their attitude towards treatment was another aspect of our study. Analysing this information helped in formulating evidence-based health policies. 20% of the women viewed it as normal feature and hence did not seek any medical help. Cultural and social factors might be responsible for this perception of normality. 50% of women attributed these symptoms to infection while very few considered supernatural powers as the causative factor. Study by Patel et al [13] quoted that "most of the women believed that vaginal discharge is a fate of every woman and there is nothing to be taken care of" [10].

Cognition regarding the ill effects of untreated vaginitis was low in our study group. Only 40% could correlate it to pregnancy and childbirth complication, 24% to infertility and 42% to pelvic inflammation. Awareness that vaginal discharge could lead to cancer cervix was high (55%). Awareness regarding the preventive measures was high. 84% women attributed it to bad hygiene while 75% viewed unsafe sex as the cause of vaginal discharge. Hence majority of women believed that maintaining good genital hygiene (80%), condom use (40%) and avoiding sexual relationship with infected person (31%) were the major preventive measures. 90% women were in favour of timely treatment. [11]

Vaginitis in women need to be interpreted properly as it has physical and emotional implications [2]. Major challenges faced by doctors in the treatment of vaginitis are low educational level and hesitation in

seeking treatment. Proper education of women about vaginal discharge at community level by health care workers will go a long way in tackling problem of vaginitis.

Conclusion: our study revealed preponderance of Bacterial vaginosis in the reproductive age group. So, for controlling vaginal infection, all married women of reproductive age group should be screened regularly for vaginal infection. Health education about vaginal infection at the community level starting from adolescence to entire reproductive years should be instituted.

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