

Study on Prevalence of Leucorrhoea in Women Attending in OPD of Gynecology and Obstetrics

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Received: 25-10-2023 / Revised: 23-11-2023 / Accepted: 26-12-2023

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Conflict of interest: Nil

Abstract:

Background: Vaginal discharge is a highly prevalent issue, especially in India, where it is linked to significant disability, medical attention seeking, and related expenses. The purpose of this study is to determine the sociodemographic factors related to the complaint of vaginal discharge among women of reproductive age, as well as to estimate the prevalence of vaginal discharge based on hospital data.

Methods: Along with a control group of 50 women with complaints other than vaginal discharge, 100 women attending Gynecological OP with a complaint of vaginal discharge lasting one week or longer were recruited as study participants. Every case was chosen from the Outpatient (OP) Obstetrics and Gynecology SDH/CHC, Biraul, Darbhanga, between October 2022 and September 2023.

Results: The range of ages was 19 to 47. Ages 21 to 30 accounted for 56% of the patient population. 60% of the study group is from an urban region, 40% is from a rural location, and 24% and 76% are from the control group. The study group's maximum incidence of vaginal discharge was found in 61% of low-socioeconomic women and 39% of high-socioeconomic women. The control group's maximum incidence was found in 76% of low-socioeconomic women and 24% of high-socioeconomic women.

Conclusion: One of the most prevalent complaints among women who are fertile is leucorrhoea. Women are more prone to contract other dangerous sexually transmitted infections (STIs) because they are less likely to seek treatment for the morbidity associated with asymptomatic instances of bacterial vaginosis. In light of this, it is advised that women who visit family planning clinics or prenatal and Gynecology clinics be checked for BV cases and treated in order to lower their chance of contracting other STIs.

Keywords: Gynaecological problem; Leucorrhoea; Reproductive health; vaginal discharge.

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Introduction

Leucorrhoea is an irregular, non-hemorrhagic vaginal discharge that is frequently accompanied by discomfort. The discharge could have a color that is greenish, yellow, or white. It is a sign of pelvic pathology that is underlying. It is responsible for more than one-fourth of the visits made by gynaecologists to gynaec patients [1]. It is among the typical issues that women deal with throughout their lives. Women may seek therapy just for this symptom when it becomes so acute as to obscure the underlying illness [2-4].

Leucorrhoea is physiological when linked to different menstrual cycle phases. Leucorrhoea is thought to be predisposed by alterations in the vaginal epithelium, the pH of the vaginal discharge, and the usual bacterial flora. However, when it develops into a pathological condition, it causes related issues including low backache, vulva itching and burning, poor appetite, discomfort, weakness throughout, pain in both legs, etc.

Leucorrhoea is caused by a chronic retroverted uterus, weariness, malnutrition, emotional disorders, unsanitary conditions, incorrect diet, constipation, and chronic disease. Leucorrhoea has been linked to infections such as *Trichomonas vaginalis*, *Candida albicans* or mixed bacterial infections, gonococcal, monilial infections, vulvovaginitis, lesions of the vaginal wall, and uterine cervix [5-7].

Due to its complex causes, it is also a challenging disorder to treat well. *Trichomonas* infection is linked to a considerable risk of morbidity in women, including HIV acquisition and transmission, pelvic inflammatory disease, and unfavorable pregnancy outcomes such as abortion, preterm labor, cervical dysplasia, and infertility [8-10]. Excessive vaginal discharge is a symptom of several systemic and general diseases [11-13]. Leucorrhoea is typically accompanied by low back discomfort, vulval itching, abdominal pain, leg

pain, weakness overall, and appetite loss. If not adequately addressed, it also has an impact on the female's psychology. Women's productivity and health are also impacted.

Materials and Methods

A control group of 25 women with complaints other than vaginal discharge and 100 women attending Gynecological OP with complaints of vaginal discharge lasting one week or more were selected as study participants. From October 2022 to September 2023, all of the cases were selected from the Outpatient (OP) Obstetrics and Gynecology SDH/CHC, Biraul, Darbhanga.

Initially, a thorough history, general examination, and gynecological examination were performed. Every woman who had a specific complaint of vaginal discharge had a thorough obstetrical history recorded. Overall medical history of diabetes, hypertension, oral medication use, and IUCD use.

Every woman in the 20–50 age range, including those who were pregnant, reported having vaginal discharge, either alone or in conjunction with burning, itching, and discomfort. The discharge's characteristics ranged from being thin and uniform to frothy, smelly, and thick like curd. The discharge could stick to the vaginal wall or be in dependent

areas. Patients in the prepubertal and postmenopausal age groups who had received therapy for the same symptoms within the previous 48 hours, as well as those with menstruation, suspicious lesions such as carcinomas, were excluded in the study, provided written agreement was obtained prior to the collection of the specimen for testing.

Using a Sim's speculum or Cusco's speculum, two high vaginal swabs were taken from the posterior Fornix along with sterile swabs. Using indication papers (Ranbaxy lab) with a pH range of 1 to 14, the pH was determined. A tiny portion of the roll was separated and lightly rubbed against the vaginal wall or touched to tiny amounts of discharge.

A color shift was seen and compared to the indicator. As a result, vaginal fluid's pH was determined.

Results

This is a prospective study where two hundred women in reproductive age group with complaint of vaginal discharge attending the Outpatient Department of Obstetrics and Gynecology, SDH/CHC, Biraul, Darbhanga.

Table 1: Age Distribution

Age in years	Study Group	Percentage (%)	Control Group	Percentage (%)
15-20	13	13%	6	24%
21-25	30	30%	7	28%
26-30	20	20%	7	28%
31-35	17	17%	2	8%
36-40	5	5%	1	4%
>40	15	15%	2	8%
Total	100	100.0%	25	100

The age distribution of cases is shown in Table 1. The range of ages was 19 to 47. 21 to 30 year olds made up 56% of the patient population. According to Table 2, 60% of the study group is from an urban region, 40% is from a rural area, and 24% and 76% are from the control group.

Table 2: Distribution of cases according to locality

	Study Group	Percentage (%)	Control Group	Percentage(%)
Rural	40	40%	19	76%
Urban	60	60%	6	24%
Total	100	100%	25	100%

Table 3: Distribution of cases according to Socio-economic status

Status	Study Group	Percentage (%)	Control Group	Percentage(%)
Low	61	61%	19	76%
High	39	39%	6	24%
Total	100	100%	50	100%

Table 3 reveals that the highest frequency of vaginal discharge was observed in 61% of women from the low socioeconomic group and 39% from the high socioeconomic group in the study group, with 76% of women from the low socioeconomic group and 24% from the high socioeconomic group in the control group.

Table 4: Colour of discharge in study group

Colour	No. of patients	Percentage (%)
White	40	40%
Clear/gray	53	53%
Greenish yellow	7	7%
Total	100	100%

Clear or gray discharge was observed in 53% of the women in Table 4, white in 40%, and green-yellow in 7% of them. Table 5 displays the percentage of the study group that experienced thin mucoid discharge (59%), thick curdy discharge (34%), and frothy discharge (7%).

Table 5: Consistency of discharge in study group

Consistency	No. of patients	Percentage (%)
Thin mucoid	59	59%
Thick curdy	34	34%
Frothy	7	7%
Total	100	100%

Table 6: Amount of discharge

Amount	No. of patients	Percentage (%)
Minimal	27	27%
Moderate	52	52%
Copious	21	21%
Total	100	100%

Table 6 demonstrates that, in the greatest number of cases, a moderate quantity of discharge was observed (52%), followed by a little amount (27%), and a copious amount (21%).

Table 7: Leucorrhoea in association with odour, pruritis, dysuria and dysparunia

	Discharge	Study Group	Percentage (%)
Odour	With	27	27%
	Without	73	73%
Pruritis	With	36	36%
	Without	64	64%
Dysuria	With	37	37%
	Without	63	63%
Dysparunia	With	24	24%
	Without	76	76%

Table 7 demonstrates that for 27% of women, discharge with an odor was the most prevalent symptom. 36% of the patients had pruritus with discharge, 37% had dysuria, and 24% had dysparunia.

Table 8: Leucorrhoea in association with contraception

Type of contraception	Study Group	Percentage (%)
IUCD	19	25.6%
OCPS	14	19.0%
Tubectomy	41	54.4%

54.4% of women had tubectomy, according to Table 8. There were 25.6% and 19% of people utilizing OCPS and IUCD, respectively. Table 9 reveals that of the 100 cases in the study group, 25% had *Gardnerella vaginalis*, 12% had staphylococci, 5% had *E. coli*, 4% had diphtheroids, 3% each of streptococci and

Klebsiella, 2% of Micrococci and *Pseudomonas*, and 2% had no growth. 35% of cases were of candida, while 7% were of *Trichomonas*.

In the control group, coagulase-negative staphylococci were the most common organism at 12%, whereas the frequency of *G. vaginalis* was 4%.

Table 9: Analysis of various organisms from study/control groups

Organism isolated	Study Group	%	Control Group	%
<i>Gardnerella vaginalis</i>	25	25%	1	4%
<i>Candida albicans</i>	25	25%	1	4%
Other candida spp	10	10%	2	8%
<i>Trichomonas vaginalis</i>	7	7%	0	0%
Coagulase negative staphylococci	5	5%	3	12%
Coagulase positive staphylococci	7	7%	1	4%

Streptococci	3	3%	0	0%
Klebsiella spp	3	3%	1	4%
Escheichia coli	5	5%	3	12%
Pseudomonas	2	2%	0	0%
Micrococci	2	2%	1	4%
Diphtheroids	4	4%	3	12%
No growth	2	2%	8	32%

Discussion

The age group between 21 and 30 years old had the highest incidence of leucorrhoea in the current investigation. This study agrees with E.O.K. Nwankwo et al. (2010), who found that the age range of 20 to 29 years old had the highest number [14]. The research group included 60% of women from urban areas and 40% of women from rural areas. The control group included 76% of women from rural areas and 24% of women from urban areas. These results indicate the highest incidence of vaginal discharge among these women.

The study group's maximum incidence of vaginal discharge was found in 61% of low-socioeconomic women and 39% of high-socioeconomic women. The control group's maximum incidence was found in 76% of low-socioeconomic women and 24% of high-socioeconomic women. In the current study, 53% of participants had clear or grey discharge, 40% had white discharge, and 7% had yellow-green discharge.

Discharge consistency ranged from thick and curdy (34%), thin and mucoid or watery (59%), to frothy (7%). 52% of women reported a moderate level of discharge, whilst 27% reported minimum and 21% copious discharge. According to the current study, 27% of patients experience discharge with a fishy odor, which is followed by pruritus (36%), dysuria (37%), and dyspareunia (24%). Odor incidence is in line with Wathne et al. 1994 [16] (23%) and Sarah Hawkes et al. 1999[15] (31%).

According to Wathne et al.[16]1994, pruritus and dysuria correlate at 23% and 34%, respectively. Out of the 200 women who were studied not including those who were pregnant or nuptial 55.4% had tubectomies, 25.6% had IUCDs, and 19% had OCPs. The current study is in line with A. Parashar et al. 50.6% reported rate of tubectomies and E.O.K. Nwankwo et al. [14] 19.5% reported rate of OCP users. Other methods of contraception are used at a high rate in the studies conducted by E.O.K. Nwankwo et al. 2010 [14].

Trichomonas was present in 7% of cases, whereas candida albicans and other candida species accounted for 35%. The incidence of Trichomonas correlates with Schaaff et al [18] showing 6.5%, and the incidence of candidiasis correlates with Abbott et al [17] showing 32.5%. In the current

investigation, Gardnerella vaginalis accounted for 72% of the study group's non-specific vaginitis cases and 4% of the control group's cases. This outcome is consistent with the work of several authors, including I M Duttani et al.[22] (1982) 46%, D. Vijaya et al. [23] (2000) 43.39%, Soad Tabaqchali et al. [21] (1983) 57%, Leslie V. H. Hill [20] (1985) 68%, and N.B. Mirza et al.[19] (1983) 75%. K.Dhall et al. (1990) reported a low incidence of 12.8%, and Pandit D.V. et al. (1993) reported a low incidence of 25.8%.

Conclusion

It is advisable to support health education initiatives that teach women through various media platforms about the distinctions between normal and abnormal vaginal discharge, as well as when to see a gynaecologist.

In order to prevent preterm labors, particularly in pregnant women, peripheral health workers should be trained to recognize the different signs and symptoms of RTIs and be able to send patients to PHCs for timely and early treatment.

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