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A study on prevalence of leucorrhoea in women attending in OPD of gynecology and obstetrics department in a tertiary hospital

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Abstract:

Background: The complaint of vaginal discharge is very common, particularly in India, it is associated with considerable disability, health seeking, and associated costs. **Objective:** To estimate the hospital based prevalence of vaginal discharge, to find out socio-demographic variables associated with the complaint of vaginal discharge, among the women of reproductive age. **Materials and Methods:** 200 women attending to Gynaecological OP with the complaint of vaginal discharge of one week or more were selected as study group along with a control group of 50 women with complaints other than vaginal discharge. All the cases were selected from Out patient (OP) of Gynecology department in Narayana Hospital, Nellore. The study period was two years. **Results:** The age range varied from 19 to 47. 50% of patients were in 21 – 30 yrs age group. 60% of study group belongs to urban area followed by 40% belongs to rural area and in control group 24% and 76%. Maximum incidence of vaginal discharge was noted in 61% of women who belongs to low socio economic and 39% of women belongs to high socio economic in study group followed by 76% belongs to low socio economic & 24% belongs to high socio economic status in control group. **Conclusion:** Leucorrhoea is a common complaint in women of child bearing age. Asymptomatic cases of Bacterial vaginosis are more common and women are less likely to seek treatment for the morbidity and thus are more likely to acquire other serious STI's. In view of this it is suggested that women attending antenatal and gynaecology clinics or family planning clinic should be screened and treated for BV cases to reduce risk of other STI.

Key words: Gynaecological problem; Leucorrhoea; Reproductive health; Narayana Hospital; Vaginal discharge

Introduction

Leucorrhoea is one of the major problems encountered in Gynaecological practice. The most common cause of leucorrhoea is physiological, followed by vaginal infections due to bacteria, virus, fungi and parasites. Other causes include foreign bodies, cervicitis and atrophic vaginitis [1].

Infection of vaginal mucosa by Trichomonas vaginalis and Candida is the most common cause of leucorrhoea .These are treatable as well as preventable causes as both these infections are transmitted sexually. Although 25 % of both the infections are asymptomatic (2,3), chronic inflammation would be an anticipated progression to dysplasia if it remains unresolved (4,5).

Materials and Methods

200 women attending to Gynaecological OP with the complaint of vaginal discharge of one week or more were selected as study group along with a control group of 50 women with complaints other than vaginal discharge. All the cases were selected from Out patient (OP) of Gynecology department in Narayana Hospital, Nellore. The study period was two years. **Method of collection of Data:** A comprehensive history, general examination and gynaecological examination were initially carried out. Detailed Obstetrical history was taken from all the women with special complaint of vaginal discharge. General history of Diabetes, Hypertension, history of oral pills and IUCD taken. Inclusion criteria: All the women between the age of 20 – 50yrs (including pregnant women) presented with vaginal discharge, with or without associated vaginal discomfort, pruritus and burning sensation. The nature of discharge varied from thin homogenous to frothy and foul smelling to thick curd like discharge. The discharge may be in dependent areas or adherent to the vaginal

wall. Written consent taken prior to collection of the specimen for investigation. Exclusion criteria:_Patients in pre pubertal and post menopausal age groups. Patients who had undergone treatment for the same symptoms within prior 48 hours. Patients who were menstruating, suspicious lesions like carcinomas. **Sample collection**:- Two high vaginal swabs were collected with sterile swabs from the posterior Fornix by using a Sim's speculum / Cuscos speculum. **Laboratory Investigations**: The pH was measured using indication papers (Ranbaxy lab) ranging from 1 – 14. A small strip of the roll was detached and touched to small amounts of discharge or gently rubbed against the vaginal wall. Colour change was observed and matched against the indicator. Thus the pH of vaginal fluid was measured.

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, Narayana Medical College Hospital are studied for a period of 2yrs (October 2009 – October 2011).

Table No.1: Age distribution

Age (in years)	Study group	%	Control group	%
15-20	26	13	12	24
21-25	60	30	13	26
26-30	40	20	14	28
31-35	34	17	4	8
36-40	10	5	3	6
Above 40	30	15	4	8
Total	200	100	50	100

Table 1, shows age distribution of cases. The age range varied from 19 to 47. 50% of patients were in 21 – 30 yrs age group.

Table 2, shows 60% of study group belongs to urban area followed by 40% belongs to rural area and in control group 24% and 76%.

Table No.2: Distribution of cases according to locality

	Study group	%	Control group	%
Rural	80	40	38	76
Urban	120	60	12	24
Total	200	100	50	100

Table No.3: Distribution of cases according to socio economic status

Status	Study group	%	Control group	%
Low	122	61	38	76
High	78	39	12	24
Total	200	100	50	100

Table 3, shows maximum incidence of vaginal discharge was noted in 61% of women who belongs to low socio economic and 39% of women belongs to high socio economic in study group followed by 76% belongs to low socio economic & 24% belongs to high socio economic status in control group.

Table 4: Colour of discharge in study group

Colour	No of patients	%
White	80	40
Clear/gray	106	53
Greenish yellow	14	7
Total	200	100

Table 4 shows Clear or gray coloured discharge noted in 53%, white in 40% and green yellow in 7% women.

Table 5: shows Thin mucoid discharge was observed in 59%, thick curdy discharge in 34% and frothy discharge in 7% among study group.

Table 5: Consistency of discharge in study group

Consistency	No of patients	%
Thin mucoid	118	59
Thick curdy	68	34
Frothy	14	7
Total	200	100

Table 6: Amount of discharge

Amount	Study group	%
Minimal	54	27
Moderate	104	52
Copious	42	21
Total	200	100

Table 6 shows in maximum number of cases moderate amout of discharge noted which was 52% followed by 27% minimal amount and copious amount in 21% .

Table 7: Leucorrhoea in association with odour, pruritis, dysuria & dysparuenia

	Discharge	Study group	%
Odour	With	54	27
	Without	146	73
Pruritis	With	72	36
	Without	128	64
Dysuria	With	74	37
	Without	126	63
Dysperunia	With	48	24
	Without	152	76

Table 7 shows discharge with odour was the common symptom found in 27% of women. Pruritus with discharge was noted in 36%, dysuria 37% and dysparuenia 24%.

Table 8: Leucorrhoea in association with contraception

Type of contraception	Study group	Percentage
IUCD	38	25.6
OCPS	28	19
Tubectomy	82	55.4
Total	148	100

Table 8 shows women who underwent tubectomy were 55.4%. Whose using IUCD and OCPS were 25.6% and 19% respectively.

Table 9, shows among 200 cases of study group Gardnerella vaginalis was 25% followed by 12% staphylococci, E.coli 5%, Diphtheroids 4%,streptococci,Klebsiella 3% each, Micrococci, pseudomonas 2% each, no growth 2%.Incidence of candida was 35% and Trichomonas was 7%. In control group the incidence of G.vaginalis was 4% and the predominant organism was E.coli which was 12% followed by coagulase negative staphylococci.

Discussion

In present study, the incidence of Leucorrhoea was maximum in the age group 21 to 30 years. This study correlates with E.O.K. Nwankwo et al 2010, where maximum number was seen in age group 20 – 29 yrs [6]. Maximum incidence of vaginal discharge was noted in 60% of women who belongs to Urban area and 40% of women belongs to Rural area in study group followed by 76% belongs to Rural area and 24% of women belongs to Urban area in control group.

Maximum incidence of vaginal discharge was noted in 61% of women who belongs to low socio economic and 39% of women belongs to high socio economic in study group followed by 76% belongs to low socio economic & 24% belongs to high socio economic status in control group. In the present study 53%presented with clear or grey colour discharge, 40% white colour &7%with yellow green discharge.

Consistency of discharge varied as thick curdy-34%, thin mucoid or watery-59%& frothy-7%. The amount of discharge moderate in 52% of women followed by 27% minimal and 21% copious. In the present study discharge with fishy odour is a common symptom seen in 27% followed by pruritus – 36 %, dysuria – 37 % & dyspareunia – 24 %.

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

Organism isolated	Study group	%	Control group	%
Gardnerella vaginalis	50	25	2	4
Candida albicans	50	25	2	4
Other candida spp	20	10	4	8
Trichomonas vaginalis	14	7	0	0
Coagulase negative staphylococci	9	4.5	6	12
Coagulase positive staphylococci	15	7.5	2	4
Streptococci	6	3	0	0
Klebsiella spp	6	3	2	4
Escherichia coli	10	5	6	12
Pseudomonas	4	2	0	0
Micrococci	4	2	2	4
Diphtheroids	8	4	5	10
No growth	4	2	16	32

Incidence of odour coincides with Sarah Hawkes et al 1999 [7] (31%) and Wathne et al 1994 [8] (23%). Pruritus and dysuria correlates with Wathne et al [8]1994, who reported as 23% and 34% respectively. Of the 200 women studied excluding pregnant & nuliparous women 55.4% are tubectomised, 25.6 % using IUCD, 19 % using OCPS. The present study correlates with A. Parashar et al, in view of rate of tubectomies who reported as 50.6% and with E.O.K. Nwankwo et al [6], in rate of OCPs users who reported as 19.5%. In the studies done by E.O.K. Nwankwo et al 2010 [6], rate of other methods of contraception are high.

The incidence of candida albicans & other candida species was 35% and Trichomonas was 7%. Incidence of candidiasis correlates with Abbott et al [9] which shows 32.5% and incidence of Trichomonas correlates with Schaaff et al [10] which shows 6.5%.

In the present study Gardnerella vaginalis was a predominant organism in non specific Vaginitis (72%) in study group and 4% incidence in control group. This result is in accordance with various authors N.B.Mirza et al [11] (1983) 75%, LeslieV H Hill [12] (1985) 68%, Soad Tabaqchali et al [13] (1983) 57%, I M Duttani et al [14] (1982) 46% and D.vijaya et al [15] (2000) 43.39%. Low incidence was reported by K.Dhall et al [16] (1990) 12.8% and Pandit D .V.et al [17] (1993) 25.8%.

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Conclusion

Health educational programmes through different media to educate women about the difference between normal and abnormal vaginal discharge and when to consult the gynaecologist should be encouraged. Peripheral health workers should be oriented and sensitized for identifying various signs and symptoms of

RTI's and be able to refer the patients to PHC's for early and prompt treatment so that to avoid preterm labours especially in pregnant women.

References

1. Pravina S. Ponnuvel K.M. Thangam Menon, Pramila S: Microbial etiology of leucorrhoea. J. Obstet and Gynaecol Ind : 1991 ; Vol. 41: 90 – 92 .

2. D.C.Dutta. Text Book of Gynaecology.5th Edition, 2009. NCBA Publication.

3. Howkins and Bourne Shaw's Text Book of Gynaecology.15th Edition.2011.Elsevier Publication.

4. Balkwill F and Mantovani A. Inflammation and cancer: back to Virchow? Lancet 2001; 357: 539-546.

5. Lisa M Coussens and Zena Werb. Inflammation and cancer. Nature 2002; 420: 860-867.

6. Nwankwo E.O.K., Kandakai Olukemi Y.T., Shuaibu S.A.. Aetiologic agents of abnormal vaginal discharge among females of reproductive age in Kano, Nigeria. Journal of Medicine and Biomedical Sciences, ISSN: 2078 – 0273, Nov 2010: 12-16.

7. Sarah Hawkes, Linda Morison, Susan Foster et al. Reproductive-tract infections in women in low-income, low prevalence situations: assessment of syndromic management in Matlab, Bangladesh. The Lancet. Vol 354:1776 – 81.November 1999.

8. Wathne B, Holst E, Hovelius B, Mardh PA. Vaginal Discharge – Comparision of clinical, laboratory and microbiological fingings. Acta Obstet Gynecol Scand 1994;73:802 – 808.

9. Abbott J. Clinical and microscopic diagnosis of vaginal yeast infection: a prospective analysis. Ann Emerg Med. 1995; 25:587-591.

10. Schaaf VM, Perez-Stable EJ, Borchardt K. The limited value of symptoms and signs in the diagnosis of vaginal infections. Arch Intern Med. 1990; 150:1929 - 1933.

11. Mirza NB, H.Nsanze, LJ D'costa and piot Microbiology of vaginal discharge in Nairobi,Kenya,Br J Vener Dis 1983;59:186-8.

12. Leslie V, H Hill. Anaerobes and Gardnerella vaginalis in non-specific Vaginitis.

13. Soad Tabaq chali, M Wilks and RN Thin Gardnerella vaginalis and anaerobic bacteria in genital disease. Br . J.Vener Dis 1983;59:111-5.

14. M Dattani, A Gerken and B A Evans. Aetiology and management of non-specific Vaginitis. Br.J.Vener Dis 1982;58:32-5.

15. Viaya, Leelavathi, Udaya kumar. Microbiological study of Nsv with special reference to bacterial vaginosis. obs & Gynae Today.vol V NOII:Nov 2000;669-70.

16. K Dhall C.Sokhey A.Sarkar, G.I.Dhall. N.K.Ganguly. Isolation of Gardnerella vaginalis in cases attending the gynaecological OPD and family planning clinic of PGIMER, CHANDIGARH. Journal of obstetrics and Gynaecology 1990,414-417.

17. Pandit D.V, Bhatt R.R..Karnad J.M,Deodhar Journal of obstetrics & Gynaecology of Indian 1993:244-247.

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