

A study of gardenella vaginalis in women patients with leucorrhoea at tertiary health care center

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Abstract

Introduction: Vaginal symptoms (itching, irritation and abnormal but non-bloody discharge) are a common reason for consulting the general practitioner. **Aims and Objectives:** To Study Gardenella Vaginalis in Women Patients with Leucorrhoea at tertiary health care center **Methodology:** This was a cross-sectional study carried out tertiary care health center in the OBGY Department in the Patients with history of Leucorrhoea were studied during the one year period i.e. Jan 2014 to Jan 2015. Total 150 Patients were having the symptoms of Leucorrhoea. All Patient with the complain of Leucorrhoea were included while the patients who does not give consent, terminally ill were exclude from the study. Sample collection done by two high vaginal swabs were collected with sterile swabs from the posterior Fornix by using a Sim's speculum / Cusco's speculum. **Result:** The majority of the patients were in the age group of 21-25 i.e. 30.00% followed by Above 40-20.00%; 26-30-18.00%; 31-35-12.00%; 15-20-11.33%; 36-40-8.66%. The most common symptoms associated with Leucorrhoea were Odour-34.67% followed by Pruritis -22.67%; Dysuria -18.66%; Dysperunia-16.67%. The majority of the risk factors associated in the Patients with Leucorrhoea were Poor hygiene 35.33%; IUCD-22.66%; Pregnancy-22.66%; Use of Pessaries as contraceptive -15.33%; Diabetes-12.66%; Silk undergarment -12.66%. Gardnerellavaginalis -39.33% followed by Candida albicans -28.66%; Other candida spp-25.33%; Trichomonasvaginalis -19.33%; Coagulase positive staphylococci -15.33%; Coagulase negative staphylococci -13.33%; Streptococci-10.00%; Klebsiellasp -8.00%; Escherichia coli-7.33%; Pseudomonas-5.33%. **Conclusion:** The majority of the patients were in the age group of 21-25. The most common symptoms associated with Leucorrhoea were Odour. The majority of the risk factors associated in the Patients with Leucorrhoea were Poor hygiene, Pregnancy, Use of Pessaries as contraceptive Diabetes and Use of Silk undergarment.

Key words: Gardenella Vaginalis, Leucorrhoea, Diabetes.

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INTRODUCTION

Vaginal symptoms (itching, irritation and abnormal but non-bloody discharge) are a common reason for

consulting the general practitioner.¹⁻⁴ Though not a cause of great morbidity and, therefore, considered to be trivial at times, they can be the source of much distress. For this reason, an accurate diagnosis is recommended, based on knowledge of the epidemiology of lower genital tract infections, careful physical examination, consistent application of laboratory tests and, where needed, microbiological.⁵ Infection of vaginal mucosa by Trichomonasvaginalis 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^{6,7}, chronic inflammation would be an anticipated progression to dysplasia if it remains unresolved^{8,9}.

AIMS AND OBJECTIVES

To Study Gardenella Vaginalis in Women Patients with Leucorrhoea at tertiary health care center

MATERIAL AND METHODS

This was a cross-sectional study carried out tertiary care health center in the OBGY Department in the Patients with history of Leucorrhoea were studied during the one year period i.e. Jan 2014 to Jan 2015. Total 150 Patients were having the symptoms of Leucorrhoea. All Patient with the complain of Leucorrhoea were included while the patients who does not give consent, terminally ill were exclude from the study. Sample collection done by two high vaginal swabs were collected with sterile swabs from the posterior Fornix by using a Sim’s speculum / Cuscos speculum.

RESULT

Table 1: Age wise distribution of the Patients

Age (in years)	No	Percentage (%)
15-20	17	11.33%
21-25	45	30.00%
26-30	27	18.00%
31-35	18	12.00%
36-40	13	8.66%
Above 40	30	20.00%
Total	150	100.00%

The majority of the patients were in the age group of 21-25 i.e. 30.00% followed by Above 40-20.00%; 26-30-18.00%; 31-35-12.00%; 15-20-11.33%; 36-40-8.66%

Table 2: Symptoms associated with Leucorrhoea

Symptoms	No.	Percentage (%)
Odour	52	34.67%
Pruritis	34	22.67%
Dysuria	28	18.66%
Dysperunia	25	16.67%

The most common symptoms associated with Leucorrhoea were Odour-34.67% followed by Pruritis -22.67%; Dysuria -18.66%; Dysperunia-16.67%.

Table 3: Risk Factors associated with Leucorrhoea in the Patients

Associated Factors	No.	Percentage (%)
IUCD	34	22.66%
Use of Pessaries	23	15.33%
Diabetes	19	12.66%
Poor hygiene	53	35.33%
Pregnancy	34	22.66%
Silk undergarment	19	12.66%

The majority of the risk factors associated in the Patients with Leucorrhoea were Poor hygiene. 35.33%; IUCD-

22.66%; Pregnancy-22.66%; Use of Pessaries as contraceptive -15.33%; Diabetes-12.66%; Silk undergarment -12.66%.

Table 4: Distribution of the Patients as Per Organism Isolated

Organism Isolated	No.	Percentage (%)
Gardnerellavaginalis	59	39.33%
Candida albicans	43	28.66%
Other candida spp	38	25.33%
Trichomonasvaginalis	29	19.33%
Coagulase positive staphylococci	23	15.33%
Coagulase negative staphylococci	20	13.33%
Streptococci	15	10.00%
Klebsiellaspp	12	8.00%
Escherichia coli	11	7.33%
Pseudomonas	8	5.33%

Gardnerellavaginalis-39.33% followed by Candida albicans -28.66%; Other candida spp-25.33%; Trichomonasvaginalis -19.33%; Coagulase positive staphylococci -15.33%; Coagulase negative staphylococci -13.33%; Streptococci-10.00%; Klebsiellaspp -8.00%; Escherichia coli-7.33%; Pseudomonas-5.33%.

DISCUSSION

Leucorrhoea is excessive quantity if normal vaginal discharge it is either clear or white in color, sticky and leaves yellow satins on undergarments or clothes. It can be infected with fungi or bacteria called as infective leucorrhoea fungal infection has curdy white discharge and associated with itching, in bacterial infection it become yellowish green or foul smelly, it can also occur due to cervical polyps in that case it might be brownish or bloody. Risk factors for leucorrhoea are diabetes, poor hygiene, persistent moisture in genital area, use of contaminated pads and toilet accessories, imbalanced diet, use of nylon or silk undergarments, and stress. Leucorrhoea also occurs in pregnancy and period after pregnancy, after sex with condoms, use of pessaries, or diaphragms or intrauterine birth control devices¹⁰. The majority of the patients were in the age group of 21-25 i.e. 30.00% followed by Above 40-20.00%; 26-30-18.00%; 31-35-12.00%; 15-20-11.33%; 36-40-8.66% this was comparable with This study correlates with E.O.K. Nwankwo *et al* 2010, where maximum number was seen in age group 20 – 29 yrs¹¹. The most common symptoms associated with Leucorrhoea were Odour-34.67% followed by Pruritis -22.67%; Dysuria -18.66%; Dysperunia-16.67%. The majority of the risk factors associated in the Patients with Leucorrhoea were Poor hygiene 35.33%; IUCD-22.66%; Pregnancy-22.66%; Use of Pessaries as contraceptive -15.33%; Diabetes-12.66%;Silk undergarment -12.66%. Gardnerellavaginalis -39.33% followed by Candida albicans -28.66%;Other candida

spp-25.33%; *Trichomonas vaginalis* -19.33%; Coagulase positive staphylococci -15.33%; Coagulase negative staphylococci -13.33%; Streptococci-10.00%; *Klebsiella* spp -8.00%; *Escherichia coli*-7.33%; *Pseudomonas*-5.33% these findings are comparable with N.B. Mirza *et al*¹² (1983) 75%, Leslie V H Hill¹³ (1985) 68%, SoadTabaqchali *et al*¹⁴ (1983) 57%.

CONCLUSION

The majority of the patients were in the age group of 21-25. The most common symptoms associated with Leucorrhoea were Odour. The majority of the risk factors associated in the Patients with Leucorrhoea were Poor hygiene, Pregnancy, Use of Pessaries as contraceptive Diabetes and Use of Silk undergarment.

REFERENCES

1. Sobel JD. Vaginal infections in adult women. *Med Clin North Am* 1990; 74: 1573-1602.
2. McCue JD. Evaluation and management of vaginitis. An update for primary care practitioners. *Arch Intern Med* 1989; 149: 565- 568.
3. Bro F. Patients with vaginal discharge in general practice. *Acta Obstet Gynecol Scand* 1989; 68: 41-43.
4. Holmes KK. Lower genital tract infections in women: cystitis, urethritis, vulvo-vaginitis, and cervicitis. In:

- Holmes KK, Mardh P-A, Sparling PF, Wiesner PJ (eds). Sexually transmitted diseases. New York, NY: McGraw-Hill, 1990.
5. Eschenbach DA, Hillier SL. Advances in diagnostic testing for vaginitis and cervicitis. *J Reprod Med* 1989; 34: 555-564.
 6. D.C.Dutta. Text Book of Gynaecology. 5th Edition, 2009. NCBA Publication.
 7. Howkins and Bourne Shaw's Text Book of Gynaecology. 15th Edition. 2011. Elsevier Publication.
 8. Balkwill F and Mantovani A. Inflammation and cancer: back to Virchow? *Lancet* 2001; 357: 539-546.
 9. Lisa M Coussens and Zena Werb. Inflammation and cancer. *Nature* 2002; 420: 860-867.
 10. Leucorrhoea. <http://www.desiclinic.com/roman/leucorrhoea-516.html>
 11. 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.
 12. Mirza NB, H.Nsanze, LJ D'costa and piot Microbiology of vaginal discharge in Nairobi, Kenya, *Br J Vener Dis* 1983; 59:186-8.
 13. Leslie V, H Hill. Anaerobes and Gardnerella vaginalis in non-specific Vaginitis.
 14. SoadTabaqchali, M Wilks and RN Thin Gardnerella vaginalis and anaerobic bacteria in genital disease. *Br. J.Vener Dis* 1983; 59:111-5.

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