

Perspective study on vaginal, vulvar disorders in Kerala population

Vijayadevi^{1*}, Jayasabarinathan M²

{¹Assistant Professor, Department of Obstetrics and Gynecology} {²Professor, Department of Anatomy}
Mount Zion Medical College, Adoor, Kerala, INDIA.

Email: viji.mmc03@gmail.com

Abstract

Background: Due to unhygienic, illiteracy there are many infections, on-infections, fungal, Infections which are usually ignored by females. Due to their busy schedule of their domestic commitments **Method:** 125 female aged between 16-66 were studied and classified into three group (a) 16-24 (b) 25-45 (c) 46 to 66 age group vaginal pH was measured by pH indicator strip bimanual examination. Swab was collected from posterior vaginal fornix sent for Amine test and gram staining and culture to rule out bacterial vaginitis. For fungal swab was incubated on SDA. Incubated 37°C and observed till 4 weeks. Vulvar biopsy was done in vulvar dystrophy or if malignancy was suspected **Results:** In 16-24 age group 11 (34.3%) had bacterial infection, 9 (28.1%) had fungal infection 7 (21.8%) had allergic conditions 3 (9.37%) had herpes, 2 (6.25%) had malignancy in age group 25-45, 15 (35.7%) had bacterial infection 13 (30.9%) had fungal infection 6 (14.2%) had allergic condition 5 (11.9%) herpes, 3 (7.1%) had malignancy. In the age group 46-66 20 (39.2%) had bacterial infections, 14 (27.4%) had fungal infections 6 (11.7%) had allergic condition, 4 (7.84%) had herpes 7 (13.7%) had malignancy. **Conclusion:** prevalence and risk factors associated with infections causes vagino-vulvar among reproductive and post menopausal are still unclear. Therefore present study will highlight vagino-vulvar disorders at different age group. **Key Words:** bacterial infections, vulvo vaginal conditions, allergic conditions, herpes, malignancy.

*Address for Correspondence:

Dr Vijaya Devi. Faculty Quarters, Mount Zion Medical College, Adoor, Kerala-691556. INDIA.

Email: viji.mmc03@gmail.com

Received Date: 02/06/2020 Revised Date: 09/07/2020 Accepted Date: 13/08/2020

DOI: <https://doi.org/10.26611/10121623>

This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).



Access this article online	
Quick Response Code:	Website: www.medpulse.in
	Accessed Date: 23 November 2020

INTRODUCTION

Infection or inflammation of vagina or vaginitis caused by various infections or non-infections factors¹ The most of the common causes are bacterial vaginosis (BV), vulvo-vaginal candidiasis (VVC) and Trichoma vaginitis (TV)² BV is most commonly asymptomatic characterized by discharge of homogenous grayish-whitesmelly secretion fishysmell after intercourse or during menstruation and elevation of PH above 4.5³ VVC caused by over growth of

yeast, mainly candida albicans⁴ TV is flagellate protozoan parasite that causes trichomanasis, characterized by severe vaginitis. Its transmission is usually sexual and frequent recurrence if the male partner is not simultaneously treated women with Tv may complain foul smelling discharge, dysuria, dyspareunia, vulvar itching and pain. The vulva may be erythematous, edematous and excoriated and sub epithelial hemorrhages or strawberry spots may be absorbed on the vagina and cervix⁵ If these disorders are not treated may cause morbidity and mortality in later days.

MATERIAL AND METHOD

125 females visiting to obstetrics and gynecology department of Mount Zion Medical College, adoor, Kerala, were studied.

Inclusive Criteria – women having vulvar and vaginal irritation, itching burning pain and/or dyspareunia (painful intercourse) were included in the study exclusion criteria- patients having pregnancy HIV positive were excluded from the study

Method – detail history of each patient was noted, The quantity odour, colour and consistency vaginal discharge was noted. The vaginal pH was measured directly using pH indicator strip against posterior fornix. A bimanual examination was done to look for any Adnexal tenderness. Clinical investigations were vaginal swabs from the posterior vaginal fornix were collected before bimanual examination. One swab was sent for amine test and preparation of wet mounts. The second (another swab) was sent for Gram staining and culture to rule out bacterial vaginosis from amine test. The wet mount test to identify the presence of motile, Trichomonos and clue cells. Gram staining to confirm the presence of clue cells budding yeast cells and pseudohyphae To rule out the secondary bacterial

infection. The swab was inoculated on blood agar and MacConkey agar, incubated at 37°C for 18 hours and plates were studied and confirmed by a battery of biochemical reactions for fungus, swab was inoculated on SDA, incubated at 37°C and observed till 4 weeks and growth was confirmed by germ tube test, Vulvar biopsy is done in cases where vulvar dystrophy or malignancy is suspected. The study was May 2019 to April 2020.

Statistical analysis – The different age group and different diseases were classified with percentage. The statistical analysis was in SPSS software.

This research paper is approved by Ethical Committee of Mount Zion Medical College, Adoor, Kerala-691556

OBSERVATION AND RESULTS

TABLE 1: Study of Vagino – Vulvar disorder in the age group 16-24. (Total no of patients 32)

Sl no	particulars	No of patients	Percentage (%)
1	Bacterial infection	11	34.3
2	Fungal Infection	9	28.1
3	Allergic Condition	7	21.8
4	Herpes	3	9.37
5	Malignant	2	6.25

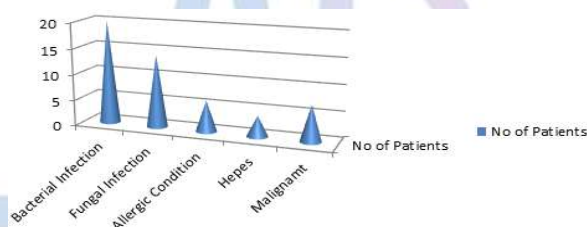


Figure 1: Study of vagino – vulvar disorder in the age group 16-24

TABLE 2: Study of Vagino-Vulvar disorders in different age groups of 25-45 years. (Total No. of patients-42)

Sl no	Particular	No of Patients	Percentage(%)
1	Bacterial Infection	15	35.7
2	Fungal Infection	13	30.9
3	Allergic Condition	6	14.2
4	Herpes	5	11.9
5	Malignant	3	7.1

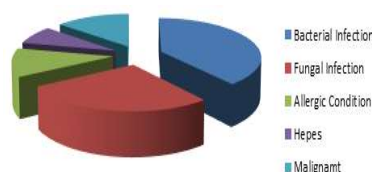


Figure 2: Study of vagino-vaginal disorders in the age group of 25-45 years

TABLE 3 : Study of Vagino-Vulvar disorders age groups of 46-66 year (Total No. of patients-51)

SlNo	Particular	No of Patients	Percentage (%)
1	Bacterial Infection	20	39.2
2	Fungal Infection	14	27.4
3	Allergic Condition	6	11.7
4	Hepes	4	7.84
5	Malignant	7	13.7

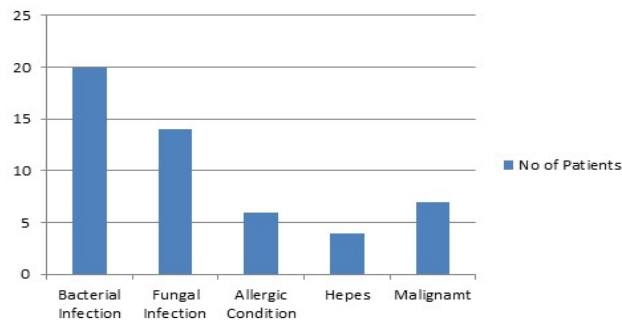


Figure 3: Study of Vagino-Vulvular disorders in the age group of 46-66 years.

DISCUSSION

The present study of vaginal, vulvar disorders in Malayalam population in different age group. In the age groups between 16-24. The total number of patients were 3211(34.3%) had Bacterial infection, 9(28.1%) Fungal infection, 7(21.8%) had Allergic disorder, 3(9.37%) had Herpes, 2(6.25%) had Malignancy. (Table-1) In the age group between 25-45 years the total number of patients were 42, 15(35.7%) had bacterial infection, 13(30.9%) Fungal infection, 6(14.2%) Allergic disorders, 5(11.9%) Herpes, 3(7.1%) had Malignancy. (Table-2) The patient aged between 46-66 years the total number of patients were 51, 20(39.2%) had Bacterial infection, 14(27.4%) had Fungal infection, 6(11.7%) had Allergic disorders, 4(7.84%) had Herpes, 7(13.7%). (Table-3) These findings were more or less in agreement with previous studies.^{6,7,8} Bacterial infection includes Bacterial vaginosis, Human Papilloma virus, Molluscum contagiosum, Trichomoniasis, Scabies and Atrophy of vaginal/vulvar. Fungal infections due to vulvo vaginal candidiasis caused by *Candida albicans* quite common in all age groups.⁹ Malignancy was higher in 46-66 age group (13.7%). Allergic condition was higher in 16-24 age group (21.8%) could be usage of soap, detergents, medications which irritate the vulva vaginal and allergic contact dermatitis too Herpes highest in 25-45 age group (11.9%) is most common cause of vulvar ulcer, these are 2 sero type of HSV₁ and HSV₂ more commonly associated with genital outbreaks. It is associated with pyrexia, dysuria, burning and pruritis. Vesicles are seen on the vulva which are more painful often found on cluster patient was severe pain with retention of urine. Malignancy of vulva can be caused by human papilloma virus (HPV) and Bartholin glands which are lubricating glands may from cyst. This cyst may develop into malignancy. In addition to this psoriasis seborrheic dermatitis, squamous cell carcinoma, Tinea Cruris, Lichen sclerosis's associated with immune disorders like alopecia, vitiligo and hypothyroidism¹⁰ The present disorders are quite prevalent in lower or middle socio economic status who were poorly educated⁽¹¹⁾ who were unaware of unhygienic diseases

moreover such infections were also observed in the Indian Society where premarital or extra marital sexual contact was the history of patients, moreover BV, VVC, Trichomonas, Vaginalis was commonly observed in sexually active patients¹². Apart from this BV was commonly observed in females who were in the usage of Intra uterine contraceptive devices (IUCD) which was associated with increased menstrual flow and irregular vaginal bleeding. In addition to this, miscarriage had a history of Bacterial infection. VVC observed in females whose husband had extra marital relation or female herself had extra marital or pre-marital relation. Atrophic vaginitis is common vaginal condition due to low estrogen states, such as menopause (natural or surgical), breast feeding and sometimes as a result of medications.

SUMMARY AND CONCLUSION

The present study of vaginal vulvular disorders at different age group will be useful to Gynecologist, Pathologist to classify the higher incidence as per their age group. Although vagina is lined by stratified squamous non-Keratinized epithelium with abundant hair to combat with infection. Hence female medico-social workers, Clinicians, Gynecologist must create awareness of hygiene among Indian women because majority of them illiterate. But this study demands further genetic, hormonal, nutritional, embryological, histo-pathological studies because exact pathogenesis of vagino-vulvular disorders still unclear.

REFERENCES

1. Dander's G G – Definition and classification of abnormal vaginal flora. Best Pract. Res. Clin. Obstet. Gynaco. 2007,21(3), 335-73
2. Workowski KA, Bolan G A – Center for sexually transmitted diseases treatments guidelines 2015, MMWR Recomm Rep. 2015, 64(RR-03) 1-37
3. Amsel R Totten P A – Non-specific vaginitis diagnostic criteria and microbial and epidemiologic association AM. J Med 1983, 74(1) 14-22
4. Van Schalkwyk. J, Yudin M H – Infection Diseases Committee Vulvo Vaginitis screaming for and

- management of trichomoniasis, Vulvovaginal candidacies and bacterial vaginosis. *J. Obstet Gynaecol. Can.* 2015, 37(3) 266-7
5. Paladine H L, Deasi U A – Vaginitis diagnosis and treatment. *Am, Fam, Phys.* 2018, 97(5) 321-9
 6. Sami S, Baloch S N – Vaginitis and sexually transmitted infections in a hospital based study. *J. Pak. Med. Assoc.* 2005, 55(6) 242-4
 7. Shrestha S, Tuladhar N R – Prevalence vaginitis among pregnant woman attending paropakar maternity and women's hospital Nepal Med. Coll. Journal 2011, 13(4), 293-6
 8. Masad D L, Patel J Gupta's – Utility of microbiological profile of symptomatic vaginal discharge in rural women. *J. Clin. Diagn. Res.* 2015, 9(3) 4-7
 9. O Connar M I, Sobel T D – Epidemiology of recurrent vulvo-vaginal candidacies. Identification and strain deformation of *Candida Albicans*. *J. Imb. Dis.* 1986, 154(2), 328-63
 10. Smith Y R, Haefner H K – Vulvular lichen sclerosis patho-physiology and treatment. *Am. J. Clin. Derm.* 2004, 5, 105-25
 11. Thulkar J. Kriplani A – Etiology and risk factors of recurrent vaginitis – *Ind. J. Med. Res.* 2010, 131(1), 83-7
 12. Puri K, Madcen. A – Incidence of various causes of vaginal discharge among sexually active females in age group 20-40 yrs. *Ind. J. Dermatol. Venerol. Leprol.* 2003, 69(2), 122-5

Source of Support: None Declared
Conflict of Interest: None Declared

