Research Article

INTERNATIONAL RESEARCH JOURNAL OF PHARMACY

www.irjponline.com

ISSN 2230-8407 [LINKING]

EXPLORATION OF SOCIODEMOGRAPHIC AND CLINICAL PATTERN IN VULVAL DERMATOMES AND ITS IMPACT ON QUALITY OF LIFE WITH DLQI (DERMATOLOGY LIFE QUALITY INDEX)

Dr. Pushpinder Kumar Singh

Assistant Professor, Department of Dermatology, Mayo Institute of Medical Sciences, Gadia, Barabanki, Uttar Pradesh

Address for correspondence

Email:- push.singh13@gmail.com

How to cite: Singh PK. Exploration Of Sociodemographic And Clinical Pattern In Vulval Dermatomes And Its Impact On Quality Of Life With DLQI (Dermatology Life Quality Index). International Research Journal of Pharmacy. 2019;10:9:241-246.

DOI: 10.7897/2230-8407.1009289

==========

ABSTRACT

Background: Vulval dermatoses can appear in a variety of ways, ranging from no symptoms to a long-term handicap. Because vaginal dermatoses are complex diseases with physical manifestations that significantly impair the quality of life for those who are affected, they are challenging to diagnose and treat.

Aim: The current clinical study's goal was to investigate the clinical and sociodemographic patterns in vulval dermatomes and how they affect DLQI (dermatology life quality index) quality of life.

Methods: All age groups of female individuals with vulval lesions were evaluated for the research. Lesions were classified as oro genital and skin lesions, oro genital lesions, genital and skin lesions, and genital lesions alone, depending on the place of assessment. The quality of life and DLQI scores were evaluated using the DLQI questionnaire.

Results: Of the 260 participants, 33.8% (n=88) were between the ages of 31 and 40, 49.61% (n=129) were illiterate, 82.69% (n=215) were housewives, and 91.92% (n=239) of the participants were married. Itching was the most common complaint among the majority of research participants, accounting for 43.07% (n=112) of the total. The majority of research participants (n = 200) had vulval dermatoses identified as infections, with inflammatory and immunobullous diseases coming in second and third, respectively, with 15%, n = 39, and 1.53%, n = 4. Individuals with oral communication had significantly higher DLQI scores. Individuals with immunobullous diseases exhibited the greatest mean DLQI scores and skin and genital involvement ($p<0.05$).

Conclusion: According to the study's findings, individuals with genital, skin, and oral lesions had the highest DLQI ratings, which significantly affected their quality of life. Evaluating how a disease is affecting a person's quality of life is crucial since it promotes better disease management and shortens the course of the illness.

Keywords: dermatoses, Dermatology life quality index, orogenital lesions, vulval dermatoses.

INTRODUCTION

The vulva is what makes up the ladies' external genitalia. The vestibule, clitoris, mons pubis, labia minora, labia majora, and Bartholin glands are the external genitalia of a female vulva.1. Vulval dermatoses are a very common medical issue

that affects women worldwide, including women in India. vulval dermatoses present as a challenging entity due to their wide range of symptoms, which can range from total asymptomatic to chronic impairment,.2

Because of the vulva's frictional, moist, and warm environment, the classical characteristics of dermatoses that appear usually differ from those of dermatoses in the genitalia. Additionally, vulva is regularly exposed to things that irritate it, such as urine, faeces, and vaginal secretions. Vulva is typically not evaluated on one's own because it is a challenging examination location.3. Additionally, afflicted individuals frequently hesitate to seek medical attention for genital lesions due to fear and worry. This can worsen quality of life by interfering with sexual functions and raising morbidity.4

A questionnaire to evaluate life quality is called the Dermatology Life Quality Index, or DLQI. The DLQI is a quick, accurate, and validated test that assesses how dermatological illnesses impair the quality of life for those who are impacted.

Concerning its scoring, a DLQI score of >10 depicts a severe impact on the quality of life of subjects being assessed using the DLQI questionnaire.[5]

It is not unusual to discover vulval infections in Indian ladies. On the other hand, these illnesses' significance, prevalence, and reporting are all underappreciated. The evaluation and treatment of dermatoses on the genitalia are made more difficult by the disease's physical manifestation on the vulva and the multivariate character of its symptoms.6

There is a dearth of information in the literature about vulval dermatoses worldwide, and much less about the condition's effects on the quality of life of affected Indian ladies.7.

Therefore, the purpose of the current study was to investigate the clinical and sociodemographic patterns in vulval dermatomes and how they affect DLQI (dermatology life quality index) quality of life.

MATERIALS AND METHODS

Studying the sociodemographic and clinical patterns in vulval dermatomes and their effects on quality of life using the Dermatology Life Quality Index (DLQI) was the goal of the current cross-sectional clinical investigation. The research population was drawn from the female patients with vulval dermatoses who reported to the Institute's Department of Dermatology. After obtaining informed permission in both written and verbal forms, the study evaluated females across all age categories.

Subsequent to the study's female participants, a comprehensive medical history was documented for each individual, succeeded by socio-demographic information. The afflicted patients' external genitalia were then thoroughly examined clinically. Along with a vaginal examination and a perspeculum, the examination was conducted in a private setting.

The examination of the perianal, perineal, nail, hair, scalp, and oral mucosa was also done. Any more sites where the dermatoses were present were evaluated further. Following a thorough evaluation of all impacted areas, the lesions were divided into four groups: skin lesions, genital and skin lesions, oro genital and skin lesions, and genital lesions alone. Adequate blood investigations and the documentation of related comorbidities came next. Grammes stain, Tzanck smear, dark ground microscopy, wet mount, and KOH (potassium hydroxide) mount staining were used as needed to get a definitive diagnosis. Biopsies were done in circumstances where it was appropriate. The DLQI questionnaire was utilised to measure the quality of life in each research participant, and scoring was done. The link between the DLQI scores, which varied from 0 to 30, and the sociodemographic and clinical data was examined.

The data gathered were analyzed statistically using SPSS software version 20 (IBM SPSS, IBM, Armonk, NY, USA. 2018). The statistical tests used to analyze the data were t-tests, Spearman’s correlation test, and one-way analysis of variance (ANOVA). The level of significance was kept at a p-value of <0.05.

RESULTS

The current cross-sectional clinical investigation sought to investigate the clinical and sociodemographic patterns in vulval dermatomes and their relationship to DLQI (dermatology life quality index) quality of life. 260 female individuals with vulval dermatoses were evaluated in the research. 33.8% (n=88) of the subjects were in the age range of 31–40 years, followed by 28.84% (n=75) of subjects in the age range of 21–30 years, 22.69% (n=59) of subjects in the age range of 41–50 years, 8.07% (n=21) of subjects from the age range of more than 50 years, and at least 6.53% of the study's

female participants were under the age of 20. The majority of the female research participants (82.69%; n = 215) were housewives, followed by working women (8.84%; n = 23); the least amount of the female study subjects (8.46%; n = 22) were students. Concerning education, the majority of the study females were illiterate with 49.61% (n=129) females followed by 20.38% (n=53) females that had school level education, graduation in 11.53% (n=30) study subjects, postgraduation in 10% (n=26) study subjects, and primary schooling in 8.46% (n=22) study subjects respectively. Most, 91.92% (n=239) study females were married, whereas, 8.07% (n=21) females were unmarried as shown in Table 1.

In terms of education, the majority of the study's female participants were illiterate, comprising 49.61% (n = 129) of the sample, followed by 20.38% (n = 53) of the sample who had completed school, with graduation occurring in 11.53% (n = 30) of the sample, postgraduation in 10% (n = 26) of the sample, and primary schooling occurring in 8.46% (n = 22) of the sample, respectively. According to Table 1, the majority of study females—91.92% (n=239)—were married, whereas 8.07% (n=21) were single.

Upon evaluating the frequency of distribution for vulval dermatoses in the current study, it was observed that 77.30% (n=201) of the study subjects had infectious dermatoses, whereas 15% (n=39) had inflammation, 3.07% (n=8) had others, 2.69% (n=7) had skin tags, 1.53% (n=4) had immunobullous dermatoses, and 0.76% (n=2) had pigmentation, respectively.

In 0.38% (n=1) of the research patients, the immunobullous dermatoses pemphigus vulgaris, lichen planus pemphigoides, bullous pemphigoides, and Hailey-Hailey disease were identified. Regarding other dermatoses, 1.15% (n=3) of the females had vulvodynia and vaginal discharge caused by foreign bodies, while 0.38% (n=1) of the research subjects experienced Lymphangiectasia and acute vulval edoema (Table 2). As shown in Table 3, the most common site of involvement for the genital alone was 78.84% (n=205) study subjects, followed by genital and skin involvement in 18.07% (n=47) study subjects, genital, skin, and oral involvement in 2.30% (n=6) study subjects, and genital and oral involvement in 0.76% (n=2) study subjects.

The participants with genital, skin, and oral involvement had the highest mean DLQI (17.85), followed by those with genital and skin involvement (132.22), those with genital involvement alone (13.14), and those with genital and oral involvement (12.98). Table 3 indicates that the difference was statistically significant with $p<0.001$.

DISCUSSION

In this current clinical investigation, 260 female participants with vulval dermatoses were evaluated. The age range of 31–40 years comprised 33.8% (n=88) of the subjects, followed by 28.84% (n=75) of subjects in the age range of 21–30 years, 22.69% (n=59) of subjects in the age range of 41–50 years, 8.07% (n=21) of subjects from the age range of more than 50 years, and at least 6.53% of the study's female participants were under the age of 20.

The majority of study females (82.69%; n = 215) were housewives, followed by study females who were employed (8.84%; n = 23); the least amount of study females (8.46%; n = 22) were students. In terms of education, the majority of the study's female participants were illiterate, comprising 49.61% (n = 129) of the sample, followed by 20.38% (n = 53) of the sample who had completed school, with graduation occurring in 11.53% (n = 30) of the sample, postgraduation in 10% (n = 26) of the sample, and primary schooling occurring in 8.46% (n = 22) of the sample, respectively. All of the study's female participants, 91.92% (n=239) were married, while 8.07% (n=21) were single. These features matched those of studies conducted by Shinde G8 in 2017 and Singh G et al9 in 2016, the authors of which evaluated participants using demographic information similar to that of the current investigation.

Regarding the distribution frequency of vulval dermatoses in the current study, it was observed that 77.30% (n=201) of the study subjects had infectious dermatoses, followed by inflammatory dermatoses in 15% (n=39) of the study subjects, others in 3.07% (n=8) of the study subjects, skin tags in 2.69% (n=7), immunobullous dermatoses in 1.53% (n=4) of the study subjects, and pigmentation in 0.76% (n=2) study subjects, respectively. The most prevalent infections among the research individuals were fungal (51.15%; n = 133), viral (18.07%; n = 47), and bacterial (8.07%; n = 21). Lichen sclerosus accounted for 8.46% (n=22) of the infections, with lichen simplex chronicus coming in second with 5% (n=13), eczema at 0.76% (n=2), and Crohn's disease and lichen planus at 0.38% (n=1) of the research patients each.

With respect to the distribution frequency of vulval dermatoses in the current study, it was found that 77.30% (n=201) of the study subjects had infectious dermatoses, 15% (n=39) had inflammatory dermatoses, 3.07% (n=8) had others, 2.69% (n=7) had skin tags, 1.53% (n=4) had immunobullous dermatoses, and 0.76% (n=2) had pigmentation, respectively. Of the research participants, fungal (51.15%; n = 133), viral (18.07%; n = 47), and bacterial (8.07%; n = 21) infections were the most common. Lichen sclerosus was the cause of 8.46% (n=22) of the infections, followed by lichen simplex chronicus (5%, n=13), eczema (0.76%, n=2), Crohn's disease (0.38%, n=1), and lichen planus (0.38%, n=1).

These results were consistent with earlier research by Pathak D et al. (2011) and Stewart KMA13 (2012), which showed that genital regions were the most often involved location in vulvar dermatoses, followed by skin involvement and genital involvement as seen in the current study. The results showed that the participants with genital, skin, and oral involvement had the highest mean DLQI (17.85), followed by those with genital and skin involvement (132.22), those with genital involvement alone (13.14), and those with genital and oral involvement (12.98). With $p<0.001$, the difference was statistically significant. These outcomes were consistent with research conducted in 1999 by Sullivan AK et al. and Sivayadevi P et al. in 2019 and 2019 where Similar to the current study, authors observed higher quality of life in participants with oro-genital involvement.

CONCLUSION

Current study finds, taking into account its limitations, that individuals with genital, cutaneous, and oral lesions have the highest DLQI ratings, which have a significant influence on their quality of life. Evaluating how a disease is affecting a person's quality of life is crucial since it promotes better disease management and shortens the course of the illness. To get a conclusive result, however, further long-term longitudinal studies with a larger sample size and length are required.

REFERENCES

1. Schlosser B, Mirowski G. Approach to the patient with vulvovaginal complaints. Dermatol Ther 2010;23:438–48.
2. Ponte M, Klemperer E, Sahay A, Chren M. Effects of vulvodynia on quality of life. J Am Acad Dermatol 2009;60:70–6.
3. Harlow BL, Wise LA, Stewart EG. Prevalence and predictors of chronic lower genital tract discomfort. Am J Obstet Gynecol. 2001;185:545–50.
4. Hansen A, Carr K, Jensen JT. Characteristics and initial diagnosis of women presenting to a referral center for vulvovaginal disease in 1996-2000. J Reprod Med. 2002;47:854–60.
5. Finlay AY, Khan GK. Dermatology life quality index (DLQI)—a simple practical measure for routine clinical use. Clin Exp Dermatol 1994;19:210-6.
6. Mirowski GW, Edwards L. Genital anatomy. In: Edwards L, editor. Genital dermatology atlas. Philadelphia: Lippincott Williams & Wilkins; 2004:1–8.
7. Beecker J. Therapeutic principles in vulvovaginal dermatology. Dermatol Clin. 2010;28:639–48.
8. Shinde G, Popere S. A clinical study of nonvenereal genital dermatoses of adults in a tertiary care center. Int J Biomed Adv Res2017;8:168-73.
9. Singh G, Rathore BS, Bhardwaj A, Sharma C. Non-venereal benign dermatoses ofvulvain sexually active woman: A clinical study. Int J Res Dermatol 2016;2:25-9.
10. Agarwal S, Ojha A, Gupta S. Profile of vitiligo in Kumaun region of Uttarakhand, India. Indian J Dermatol 2014;58:209.
11. Gokdemir G, Baksu B, Baksu A, Davas I, Koslu A. Features of patients with vulvar dermatoses in dermatologic and gynecologic practice in Turkey: Is there a need for an interdisciplinary approach? J Obstet Gynaecol Res 2005;31:427-31.
12. Pathak D, Agrawal S, Dhali TK. Prevalence of and risk factors for vulvar diseases in Nepal: A hospital-based study. Int J Dermatol 2011;50:161-7.

13. Stewart KMA. Vulvar dermatoses: A practical approach to evaluation and management. JCOM 2012;19:205-20.

14. Sivayadevi P, Anandan H. A study of patterns of non-venereal genital dermatoses in female patients at a tertiary care center. Int J Res Dermatol 2019;5:134-8.

15. Sullivan AK, Straghair GJ, Marwood RP, Staughton RC. A multidisciplinary vulval clinic: The role of genitor-urinary medicine. J Eur Acad Dermatol Venereol1999;13:36-40.

TABLES

S. No	Characteristics	Number (n)	Percentage (%)
1.	**Age range (years)**		
a)	<20	17	6.53
b)	21-30	75	28.84
c)	31-40	88	33.8
d)	41-50	59	22.69
e)	>50	21	8.07
2.	**Occupation**		
a)	Housewife	215	82.69
b)	Student	22	8.46
c)	Working	23	8.84
3.	**Education**		
a)	Illiterate	129	49.61
b)	Primary schooling	22	8.46
c)	Intermediate	53	20.38
d)	Graduation	30	11.53
e)	Post-graduation	26	10
4.	**Marital status**		
a)	Married	239	91.92
b)	Unmarried	21	8.07

Table 1: Socio-demographic characteristics in study subjects having vulval dermatoses

Vulval dermatoses	Number (n=260)	Percentage (%)
Infections	201	77.30
Bacterial	21	8.07
Vulval tuberculosis	1	0.38
Bartholin cyst	7	2.69
Folliculitis	12	4.61
Viral	47	18.07
Molluscum contagiosum	13	5
Herpes genitalis	15	5.76
Genital warts	19	7.30
Fungal	133	51.15
Candidiasis	59	22.69
Tinea curis	74	28.46
Inflammations	39	15

Crohn's disease	1	0.38
Lichen planus	1	0.38
Eczema	2	0.76
Lichen simplex chronicus	13	5
Lichen sclerosus	22	8.46
Normal variants (skin tags)	7	2.69
Pigmentation (vitiligo)	2	0.76
Immunobullous	4	1.53
Hailey-Hailey disease	1	0.38
Lichen planus pemphigoides	1	0.38
Bullous pemphigoides	1	0.38
Pemphigus vulgaris	1	0.38
Others	8	3.07
Foreign body-induced vaginal discharge	3	1.15
Vulvodynia	3	1.15
Lymohangiectasia	1	0.38
Acute vulval edema	1	0.38

Table 2: Frequency of vulval dermatoses distribution in the study subjects

S. No	Involved site	Number (n)	Percentage (%)	Mean DLQI	p-value
1.	**Genital, skin, and oral**	6	2.30	17.85	**<0.001**
2.	**Genital and oral**	2	0.76	12.98	
3.	**Genital and skin**	47	18.07	13.22	
4.	**Genital alone**	205	78.84	13.14	

Table 3: DLQI scores based on the site involved in the study subjects