

## Clinical and Demographic Forms of Vulval Dermatoses and their Impact on Quality of Life: A Tertiary Care Study

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### Abstract

**Objective:** This study's objective was to examine the clinical and demographic aspects of vulval dermatoses as well as how they affect patients' quality of life (QoL) in a tertiary care setting.

**Methods:** The study comprised 175 individuals with vulval dermatoses in total. Recorded information included demographic details, clinical diagnoses, presenting symptoms, and histological findings. To evaluate the impact on QoL, the Dermatology Life Quality Index (DLQI) was employed.

**Results:** Lichen sclerosis (42.9%), lichen planus (25.7%), contact dermatitis (11.4%), psoriasis (10.3%), eczema (5.7%), and vulvodynia (4.0%) were the most common clinical diagnoses. The most frequent presenting symptom was itching (73.1%). In the majority of cases, histopathological findings confirmed the clinical diagnoses, with lichen sclerosis and lichen planus being the most frequently identified conditions. A moderate influence on quality of life was indicated by the mean DLQI score of 10.2.

**Conclusion:** This study sheds light on the clinical, demographic, and QoL effects of vulval dermatoses. Itching was the most frequent presenting symptom, and the most frequent diagnoses were lichen sclerosis and lichen planus. These results underline the necessity of thorough management approaches that take into account the psychological and dermatological aspects of vulval dermatoses.

## 1. Introduction

Numerous inflammatory and non-inflammatory disorders that affect the vulvar region are included in the category of vulval dermatoses. These disorders can significantly reduce a person's quality of life (QoL) by causing extreme discomfort, pain, itching, and irritation. Vulval dermatoses are a frequent cause of dermatological care, but they frequently go undiagnosed and untreated, in part because of their sensitive position and the possibility for embarrassment when addressing symptoms [1,2].

The external genitalia, which include the mons pubis, labia majora and minora, clitoris, vestibule, and

perineum, make up the complicated anatomical region known as the vulva. The vulva is vulnerable to a wide range of dermatological diseases as a result of its exposure to different external stimuli, including friction, dampness, and possible irritants. These ailments may have inflammatory, autoimmune, hormonal, viral, neoplastic, or autoimmune causes [3].

According to earlier research, the prevalence of vulval dermatoses in different populations ranges from 7% to 25% [4,5]. However, because of underreporting and misdiagnosis, the true prevalence is still unknown. Additionally, there is a lack of information on the clinical manifestations and effects of vulval dermatoses on quality of life in tertiary care settings.

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It is difficult to generalize findings and comprehend the wider spectrum of vulval dermatoses because the majority of studies have concentrated on specific disorders or employed small sample sizes.

Accurate diagnosis and effective management of vulval dermatoses depend on an understanding of their clinical manifestations. Erythema, edema, erosions, ulcers, fissures, lichenification, papules, and plaques are typical clinical manifestations. Lichen sclerosus, lichen planus, contact dermatitis, psoriasis, eczema, and vulvodynia are a few of the dermatoses that are frequently seen [6, 7]. However, there can be a wide range of clinical presentations, and symptoms shared by several illnesses make identification more challenging.

The prevalence and manifestation of vulval dermatoses may also be influenced by demographic factors like age, race, and ethnicity. For instance, postmenopausal women are frequently affected by lichen sclerosus, but younger people are more likely to get lichen planus. Different age groups of women may be affected by certain disorders, such as vulvodynia [8]. Furthermore, racial and ethnic disparities in the prevalence and clinical manifestation of some vulval dermatoses have been noted, highlighting the necessity of diverse representation in research investigations [9].

It is important to not undervalue how vulval dermatoses affect quality of life. Sexual function and close personal connections can be seriously hampered by vulvar itching, discomfort, burning, and dyspareunia. In addition, the fact that vulval dermatoses are visible may cause self-consciousness, issues with one's body, and low self-esteem [10]. Patients with chronic vulval dermatoses have experienced psychosocial side effects, such as anxiety, depression, and social isolation [11]. Therefore, understanding how vulval dermatoses affect quality of life is essential for creating thorough, patient-centered care regimens.

Validated questionnaires are useful instruments for assessing how dermatological disorders affect quality of life. The entire effect of skin diseases on patients' everyday life is evaluated using the Dermatology Life Quality Index (DLQI), which is often utilized. Ten items make up the DLQI, which covers a range of topics such as symptoms and feelings, daily activities,

leisure, employment or school, interpersonal connections, and therapy [12]. Additionally, vulvar pain-related functional impairment is specifically assessed by the Vulvar Pain Functional Questionnaire (VPFQ), which is important in disorders such as vulvodynia [13-15].

This study seeks to add to the body of knowledge by examining the clinical and demographic aspects of vulval dermatoses and their effects on quality of life in a tertiary care setting. The results of this study can help with diagnosis, treatment, and patient care by shedding light on the prevalence, clinical effects, and quality of life burden of vulval dermatoses. Healthcare professionals must have a thorough grasp of the clinical and demographic features of vulval dermatoses in order to offer afflicted people with the necessary care and assistance.

In conclusion, vulval dermatoses are a broad category of inflammatory and non-inflammatory diseases that affect the vulvar area. Vulval dermatoses are still frequently misdiagnosed and undertreated despite their high prevalence and negative effects on quality of life. The purpose of this study is to fill a knowledge gap regarding the clinical and demographic aspects of vulval dermatoses and how they affect patients receiving tertiary care's quality of life (QoL). This research can help with better vulval dermatoses diagnosis, management, and patient-centered care by clarifying the various clinical presentations and their related QoL burdens.

## 2. Material and methods

**Study Design:** A cohort of 175 patients who had been diagnosed with vulval dermatoses between May 2020-May 2022 participated in this retrospective study, which was carried out at the tertiary care facility. Prior to starting the trial, the Institutional Review Board granted its ethical approval. Data were gathered from patient charts and electronic medical data.

**Study Subjects:** Adult patients with vulval dermatoses who were 18 years of age or older and who had sufficient medical records for analysis were included in the study. Patients without complete or accurate data were not included in the analysis.

**Data collection:** Clinical information was taken from the medical records, including age, presenting symptoms, and clinical results. Itching, discomfort,

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burning, dyspareunia, and any other pertinent complaints made by the patients were all listed as presenting symptoms. Physical examination findings such as erythema, edema, erosions, ulcers, fissures, lichenification, papules, and plaques were included in the clinical findings. When available, histopathological findings were also gathered.

**Assessment of Quality of Life:** Using validated questionnaires, the effect of vulval dermatoses on the patients' quality of life (QoL) was determined. The entire effect of the skin condition on patients' everyday lives was assessed using the Dermatology Life Quality Index (DLQI). Ten items make up the DLQI, including topics such as symptoms, daily activities, leisure, employment or school, interpersonal connections, and treatment. A scale of 0 to 3 is used to grade each question, with higher scores denoting a stronger influence on quality of life. A higher total score indicates a more severe impact on quality of life (0 to 30).

In addition to the DLQI, the Vulvar Discomfort Functional Questionnaire (VPFQ) was used to evaluate functional impairment caused by vulvar discomfort. The VPFQ is a validated questionnaire with 30 items that assesses various vulvar pain-related functional impairments. Each question receives a score between 0 and 4, with higher numbers denoting more severe functional impairment.

**Data Evaluation:** The demographic details of the study population, including the distribution of ages and clinical diagnoses, were summed up using descriptive statistics. As percentages, the prevalence of several clinical vulval dermatoses was determined. The frequency and distribution of the patients' presenting symptoms were examined.

To support the clinical diagnoses and ascertain their frequency, histopathological data were examined where they were available. By calculating the mean DLQI score and the percentage of patients who have vulvar pain-related functional impairment based on the VPFQ scores, the effect on QoL was evaluated.

**Ethical Considerations:** The research was carried out in compliance with the Declaration of Helsinki's

tenets of ethics. All data were anonymised to preserve privacy and compliance with data protection laws, and patient confidentiality was scrupulously upheld.

**Limitations:** This study has a number of drawbacks. First, because it uses a retrospective approach, the available medical data may be inaccurate or missing crucial details. Second, because just one tertiary care facility was used for the study, the results may not be applicable to other healthcare facilities. Finally, because self-reported questionnaires are subjective, there is a chance that recollection bias or social desirability bias will be present.

Despite these drawbacks, this study offers insightful information about the clinical and societal aspects of vulval dermatoses and how they affect quality of life. The information gathered can further our knowledge of these illnesses and guide the creation of focused therapies that will enhance patient care and management.

### 3. Results

The study included a total of 175 individuals with vulval dermatoses. Table 1 provides an overview of the study population's demographic characteristics. Lichen sclerosus, which made up 42.9% of cases in the research population, was the most common clinical type of vulval dermatoses. Lichen planus came in second with 25.7% of cases, followed by contact dermatitis (11.4%), psoriasis (10.3%), eczema (5.7%), and vulvodynia (4.0%).

Table 2 provides an overview of the patients' reported presenting symptoms.

Itching was the most frequently reported presenting symptom in the study sample, reported by 73.1% of patients. Other symptoms including pain, burning, dyspareunia, and others were frequently mentioned.

For a smaller group of patients (n=85), histopathological findings were available, and most of the time they supported the clinical diagnoses. The histopathological findings are shown in Table 3.

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**Table 1:** Demographic Characteristics of the Study Population

Demographic Characteristic	N = 175
Age (years)	
Mean ( $\pm$ SD)	46.2 $\pm$ 12.5
<b>Range</b>	<b>20-78</b>
Clinical Diagnoses	
Lichen sclerosus	75 (42.9%)
Lichen planus	45 (25.7%)
Contact dermatitis	20 (11.4%)
Psoriasis	18 (10.3%)
Eczema	10 (5.7%)
<b>Vulvodynia</b>	<b>7 (4.0%)</b>

**Table 2:** Presenting Symptoms of Vulval Dermatoses

Presenting Symptom	Frequency (n = 175)
Itching	128 (73.1%)
Pain	92 (52.6%)
Burning	62 (35.4%)
Dyspareunia	54 (30.9%)
<b>Others</b>	<b>18 (10.3%)</b>

**Table 3:** Histopathological Findings

Histopathological Finding	Frequency (n = 85)
Lichen sclerosus	45 (52.9%)
Lichen planus	20 (23.5%)
Psoriasis	10 (11.8%)
Eczema	5 (5.9%)
<b>Others</b>	<b>5 (5.9%)</b>



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Lichen sclerosis was the most often confirmed diagnosis (52.9%) among patients with known histological results, followed by lichen planus (23.5%), psoriasis (11.8%), eczema (5.9%), and miscellaneous abnormalities (5.9%).

The Dermatology Life Quality Index (DLQI) was used to gauge how vulval dermatoses affected the research population's quality of life (QoL). The overall influence on QoL was estimated using the mean DLQI score.

The average DLQI score was 10.2 4.7, which indicates that vulval dermatoses have a moderately negative influence on patients' quality of life. The impact on QoL increases with the DLQI score.

In addition to the DLQI, the Vulvar Discomfort Functional Questionnaire (VPFQ) was used to evaluate functional impairment caused by vulvar discomfort. According to the VPFQ ratings, 65.1% of the study's participants reported functional impairment due to vulvar pain.

## 4. Discussion

In a tertiary care context, the current study sought to elucidate the clinical and demographic manifestations of vulval dermatoses and their effects on quality of life (QoL). Important conclusions on the prevalence, clinical symptoms, and QoL burden of vulval dermatoses in the research population were drawn from the findings. These discoveries help us understand these diseases better and have effects on how they are diagnosed, treated, and cared for in patients.

The study population was made up of adult patients with a mean age of 46.2 years in terms of demographics. This is consistent with earlier research, which found that vulval dermatoses primarily afflict women in their middle to late years of life [1]. Different clinical forms of vulval dermatoses were more or less common, with lichen sclerosis, lichen planus, contact dermatitis, psoriasis, eczema, and vulvodinia being the most frequent diagnoses. These results are in line with earlier studies that found lichen sclerosis and lichen planus to be two of the most common vulval dermatoses [2,3].

The patients' reported presenting symptoms were a reflection of the many clinical presentations of vulval

dermatoses. The majority of individuals who reported symptoms said they itched, which was the most frequent complaint. Other symptoms including pain, burning, dyspareunia, and others were frequently mentioned. These results are consistent with other research emphasizing itching as a characteristic symptom of vulval dermatoses, frequently leading to severe patient anguish and pain [4,5].

In the majority of cases, histopathological findings, which were available for a subset of patients, confirmed the clinical diagnoses. The most frequent verified diagnoses were lichen sclerosis and lichen planus, which emphasizes the value of histological investigation in some circumstances to ensure accurate diagnosis and suitable care [6].

Understanding the broader effects of vulval dermatoses on patients' lives depends on how these disorders affect patients' quality of life (QoL). The Dermatology Life Quality Index (DLQI) mean score in this study was 10.2, indicating a moderate effect on quality of life. This is consistent with earlier studies revealing varied degrees of QoL impairment in people with vulval dermatoses [7,8]. Vulval dermatoses have a wide range of effects on quality of life, including physical pain, sexual dysfunction, emotional suffering, and social repercussions [9]. These results underline the necessity for thorough, interdisciplinary management strategies that address both the dermatological and psychological components of these disorders.

Several studies have shown similar patterns regarding the prevalence and clinical manifestations of vulval dermatoses, when current findings are compared to the body of existing literature. For instance, lichen sclerosis and lichen planus were shown to be the most common diagnoses in a study by Fruchter et al. [10], which is similar with current findings. In addition, a systematic review by Smith et al. [11] emphasized the necessity for customized therapy techniques by highlighting the effect of vulval dermatoses on QoL. Current results corroborate these earlier research, highlighting the value of addressing the clinical and quality-of-life elements of vulval dermatoses.

It's crucial to recognize the limits of this study, though. The use of medical records and the retrospective approach may have caused biases and constrained the availability of some data. Because

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only one tertiary care facility was used for the study, the results may not be applicable to other healthcare settings. Additionally, because self-reported questionnaires are subjective, there is a chance that recall bias or social desirability bias will be present.

In conclusion, this study offers insightful information about the clinical and demographic manifestations of vulval dermatoses and their influence on patients receiving tertiary care patients' quality of life. The results add to the body of knowledge and have implications for patient-centered care, diagnosis, and management of people with vulval dermatoses. To improve patient outcomes and deepen current understanding of these illnesses, more research with bigger and more diverse populations is required.

## 5. Conclusion

In conclusion, this tertiary care study provided insight into the clinical and demographic manifestations of vulval dermatoses and their effects on a sample of 175 individuals' quality of life (QoL). According to the results, lichen sclerosus, lichen planus, contact dermatitis, psoriasis, eczema, and vulvodynia were the most common clinical diagnoses. The most frequent presenting symptom was itching, which was followed by discomfort, burning, and dyspareunia. The majority of clinical diagnoses were supported by histopathological findings, with lichen sclerosus and lichen planus being the most often supported diagnoses. The study also emphasized the mild effects of vulval dermatoses on patients' quality of life, which included discomfort with regard to their bodies, sexual dysfunction, psychological suffering, and social repercussions.

These results highlight the significance of early and precise diagnosis, customized therapeutic techniques, and all-encompassing care strategies that address the dermatological and psychosocial components of vulval dermatoses. The study adds to the body of knowledge on vulval dermatoses and offers knowledge that can aid medical personnel in enhancing patient treatment and raising QoL results. It is necessary to do more study with bigger and more diverse sample sizes to confirm these conclusions and investigate additional variables affecting the clinical manifestation and consequences of vulval dermatoses.

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