

# The Spectrum of Vulvar Diseases in Gynae OPD of a Tertiary Care Hospital: An Observational Study

Sukanya Chhabra<sup>1</sup>, Shobha Mukherjee<sup>2</sup>, Sakshi Srivastava<sup>3</sup>, Aakriti Garg<sup>4</sup>

## ABSTRACT

**Introduction:** The vulva is sensitive to both physiologic and pathologic changes, also to the sex hormones. Hence in addition to the hormone related changes, vulvar skin is known to show various dermatological manifestations, sexually transmitted diseases, precursor lesions and malignancies. Objective: An observational study was conducted in the Gynae OPD of Rohilkhand Medical College and Hospital, Bareilly, India.

**Material and methods:** A detailed history of each subject was elicited. Out of the 100 patients seen in OPD, most of the patients were between the age group of 16 to 75 years with mean age of 47 years.

**Results:** Maximum patients that attended our OPD for vulvar complaints were postmenopausal (68%). Majority belonged to the low (83%) or middle (12%) socioeconomic strata and only 5% women were from the upper class. The most common site of lesion was labia majora (60%) followed by labia minora (35%), other lesions were found on mons pubis (2%), clitoris (1%), fourchette (1%) and perineal region (1%).

**Conclusion:** In our spectrum of lesions, 72% were non-neoplastic and 28% were found to be neoplastic. Vulvar itching being the most common symptom present in 51% of the patients, vulvodynia in 20% of the patients, growth or ulceration in 10% patients, non specific symptoms in 19% patients.

**Keywords:** The Spectrum of Vulvar Diseases, Gynae OPD

## INTRODUCTION

The vulva consists of several folds of skin and is anatomically distinguished into the following parts like the labia majora, labia minora, clitoris, hymen and anal margin. Other than the skin folds, the vulva also houses adnexal structures like pilosebaceous glands, sweat glands, vestibular glands, mucous secreting glands and connective tissue including blood vessels, lymphatics and muscle. Vicinity of underlying vascular structures can also modify vulvar aspects. Therefore, any component of blood and lymphatic vessels may be affected through tumors, malformations or dystrophies.

Depending on the area of interest, vulva is covered by different types of epithelia microscopically, which includes keratinized hair bearing skin, partially keratinized hairless skin, beyond Hart's line, mucous membrane of the vestibule<sup>1</sup>. Therefore, vulva is a site of occurrence of various lesions arising from the aforementioned structures, with dermatological lesions being most common<sup>2</sup>.

The vulva is sensitive to both physiologic and pathologic changes, also to the sex hormones. Hence in addition to the hormone related changes, vulvar skin is known to show

various dermatological manifestations, sexually transmitted diseases, precursor lesions and malignancies<sup>3</sup>. Vulvar symptoms are common and cause considerable distress for women. Symptoms are often chronic and may significantly affect the quality of life of women including sexual function and wellbeing. A wide range of benign, premalignant and malignant lesions may occur in the vulvar region. The most common symptom of both benign and malignant vulvar lesions is vulval itching<sup>4</sup>. The spectrum of vulvar lesions is large, ranging from dystrophy to a frank carcinoma. Vulvar dystrophy refers to a clinically related group of disorders of epithelial growth that commonly present as white lesions, hence the old term leukoplakia was used. Vulvar carcinoma is encountered most frequently in postmenopausal women.<sup>5</sup> The clinician often faces a challenge to distinguish between normal variants, benign entities and a potentially serious pathology. The general approach for evaluation of vulval lesions includes a pertinent clinical history, physical examination and diagnostic studies<sup>6</sup>. In lesions clinically suspicious for malignancy (asymmetry, border irregularity, color variation, rapid change, bleeding, non-healing) one or more vulvar biopsies are recommended<sup>7</sup>.

From a pathological point of view, the vulva can be affected by specific disorders such as multifocal HPV lesions of any degree or vulvar expression of a vaginal infection. Vulva can also exhibit specific dermatological diseases for which signs can be observed elsewhere on the body, such as in lichen sclerosus or psoriasis. However, vulva can also exhibit signs of a large variety of diseases, such as digestive, hematological, immunological, and endocrine disorders. This leads us to consider any vulvar disorder as a potential expression of a very large panel of diseases.<sup>1</sup> Vulva is the most visible female genital structure, but it has not received due attention in medical literature and has been referred to as "the forgotten pelvic organ"<sup>1</sup>.

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**Aim and objectives**

**Aim:**

1. To study the spectrum of vulvar diseases presenting in RMCH OPD.
2. To diagnose and treat abnormal vulvar lesions in women who attended Gynae OPD.

**Objectives**

1. Identify whether presenting vulval lesion is dermatological or non-dermatological and to control the symptoms.
2. Identify nature of the lesion (whether it is inflammatory or neoplastic).
3. Identify those skin lesions not responding to treatment which require biopsy and further management.

**MATERIAL AND METHODS**

An observational study was conducted in the Gynae OPD of Rohilkhand Medical College and Hospital, Bareilly, India over a span of one year from 1<sup>st</sup> October 2019 to 30<sup>th</sup> October 2020 after taking ethical clearance from ethics committee. Cases included were women with vulvar lesions who attended OPD. After taking an informed consent, all the females with vulvar lesions were thoroughly investigated to rule out any systemic illness causing the lesion. In cases with a solid growth, non-healing or recurrent lesion, a biopsy was taken. For dermatological lesions, dermatology specialist opinion was taken for confirmation of diagnosis and further treatment.

**Inclusion criteria**

Women with vaginal discharge, itching or discomfort with a visible lesion or growth in the vulvar region.

**Exclusion criteria**

Women with vaginitis or cervicitis, with diagnosed vulval cancer.

A detailed history of each subject was elicited. Pain, discomfort, irritation, itching which were the most common symptoms. Complaints of dysuria, burning micturition and increased urinary frequency too were looked out for, to rule out a urinary tract infection. History of other concurrent problems such as psoriasis, chickenpox, recent trauma or use of antibiotics was enquired. Personal and family history of atopic conditions such as hay fever, asthma, eczema was asked. History of weight loss and prolonged cough was asked to conclude a tuberculous affection. History of diabetes was asked as it is significant in cases of recurrent vulvitis.

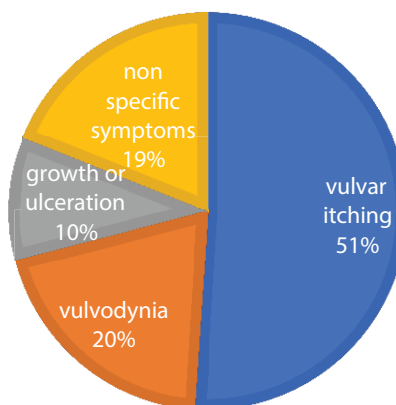
General examination followed by a detailed vulval and vaginal examination was done on each subject. General examination included examination of the mouth (for lichen planus) and the scalp, elbows, knees and nails (for psoriasis). The conjunctiva was examined keeping in mind Behcet’s disease. Thorough examination of the lymph nodes was done for the possibility of Tuberculosis or a lymphoid malignancy. Lower eyelids, malar region, upper lips were examined as there is a chance of involvement in syringomas. This was followed by a detailed vulvar and vaginal examination. Colposcopy was done in patients in whom the vaginal examination was

inconclusive. Whenever we came across vulvar lesions, we categorized them using a systematic pathway which decreased the chances of missing a diagnosis. The colour, appearance and presentation of the lesion were broadly used to classify the lesion and make a provisional diagnosis. Visible white lesions- Lichen sclerosus, leukoplakia, squamous cell hyperplasia, HPV, VIN, vulvar squamous cell carcinoma. Dark coloured or red lesions- seborrheic dermatitis, psoriasis, lichen planus, lentigo, Paget’s disease, nevi, VIN or cancer, malignant melanoma. When the diagnosis was not apparent by naked-eye or by colposcopic examination, vulvar biopsies were obtained for aceto-white changes and for visible vulvar lesions (such as ulceration or hyperpigmentation). Biopsy was taken in case of suspicious lesions or verrucous growths under intravenous sedation. Biopsies were sent for histopathological examination. Most of the diagnoses were made based on the history and visual appearance of the lesion.

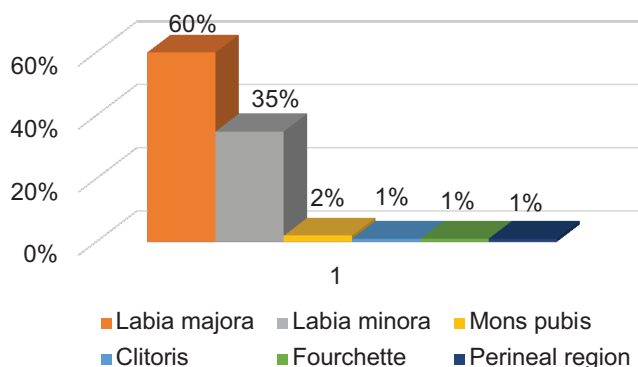
**RESULTS**

Out of the 100 patients seen in OPD, most of the patients were between the age group of 16 to 75 years with mean age of 47 years. Table 1(PIE CHART) summarizes the most common presenting symptoms, Vulvar itching being the most common symptom present in 51% of the patients, vulvodynia in 20% of the patients, growth or ulceration in 10% patients, non specific symptoms in 19% patients.

- Vulvar itching
- Vulvodynia
- Growth or ulceration
- Non specific symptoms



**Graph-1:** Presenting symptoms



**Graph-2:** Site of lesions

Lesions	
Non neoplastic	72%
Lichen sclerosus et atrophicus	33%
Lichen simplex chronicus	20%
Bartholin`s cyst	6%
irritant contact dermatitis	4%
vulval candidiasis	8%
squamous hyperplasia	1%

**Table-3:** Non neoplastic lesions

<b>Condyloma acuminata</b>	10%
Fibroepithelial polyp	6%
Squamous papilloma	5%
lipoma	1%
neurofibroma	1%
Acrochordon(skin tags)	1%
Epidermal inclusion cysts	2%
Malignancy (SCC)	1%

**Table-4:** Neoplastic lesions



**Figure-1:** Warts



**Figure-2:** Lichen Planus

Table 2(BAR GRAPH) summaries the site of lesions seen in our study. Most commonly occurring site of lesions was labia majora i.e 60%, followed by labia minora seen in 35% cases,

mons pubis in 2% cases and clitoris, fourchette and perineal region each having 1% cases.

Broadly vulvar lesions were classified into neoplastic and non-neoplastic lesions, non-neoplastic lesions were 72% while neoplastic lesions were 28%. Table 3 summarizes non neoplastic vulvar lesions seen in our study. Out of 72% non neoplastic lesions, most frequent was lichen sclerosus et atrophicus amounting to 33%, lichen simplex chronicus as seen in 20% patients, Bartholin`s cyst in 6%, irritant contact dermatitis in 4%, vulval candidiasis in 8% cases and squamous hyperplasia in 1% cases.

Table 4 summarizes the neoplastic lesions of vulva, most common being condyloma acuminata 10%, fibroepithelial polyp 6%, squamous papilloma 5%, epidermal inclusion cysts 2%, lipoma, neurofibroma, acrochordon, malignancy each ranging 1%.

**DISCUSSION**

Broadly vulvar lesions were classified into neoplastic and non-neoplastic lesions, non-neoplastic lesions were 72% while neoplastic lesions were 28%. In our study of vulvar diseases, the lesions were broadly classified as inflammatory, neoplastic, cystic and proliferative. Most commonly occurring site of lesions was labia majora i.e 60%, followed by labia minora seen in 35% cases, mons pubis in 2% cases and clitoris, fourchette and perineal region each having 1% cases.

Out of the 100 patients seen in OPD, most of the patients were between the age group of 16 to 75 years with mean age of 47 years which is similar to the study conducted in Kolkata by Bibek Mohan R et al<sup>8</sup>. Maximum patients that attended our OPD for vulvar complaints were postmenopausal (68%). Majority belonged to the low (83%) or middle (12%) socioeconomic strata and only 5% women were from the upper class, similar distribution was observed in the study by Bibek Mohan R et al<sup>8</sup>. In our study, most of the patients presented with vulvar itching (51 %) which is similar to the study by Ozdemir O et al<sup>9</sup>, 20% had pain in the vulvar region which is similar to study by Singh G et al<sup>10</sup> whereas in study by Pathak D et al<sup>11</sup> vulvodynia was seen in 0.95 % cases, 10% noticed a swelling, growth or ulceration in the region. Others presented with non-specific symptoms like change in colour and texture of skin. Most patients presented with a combination of the above symptoms. Poor hygiene, low socioeconomic status and illiteracy were common contributory factors in most of the patients.

The most common site of lesion was labia majora (60%) followed by labia minora (35%), other lesions were found on mons pubis (2%), clitoris (1%), fourchette (1%) and perineal region (1%) similar distribution was observed in the study by Mohan H et al<sup>7</sup>.

In our spectrum of lesions, 72% were non-neoplastic and 28% were found to be neoplastic. Out of the non-neoplastic lesions, most common diagnosis was lichen sclerosus et atrophicus (LSEA) 33% followed by lichen simplex chronicus (LSC) 20% which was similar to the study done by Mohan H et al<sup>7</sup> but the results were not corroborating

with the study by Ravikumar G et al<sup>2</sup>. Bartholin's cysts were seen in 6% cases, they are the most commonly seen cystic lesions of the vulva, squamous hyperplasia in 1%, irritant contact dermatitis in 4% and vulval candidiasis was found in 8% women. Out of the 8% patients presenting with vulval candidiasis, 3% were diabetics, 1% had hypertension, 1% were obese and none had immunosuppression. Out of the 8% patients with vulvar candidiasis, 3% were found to be chronic diabetics and had recurrent complaints of pruritis and candidial discharge PV.

Out of the 28% neoplastic lesions – benign lesions were a majority (27%)- punch biopsy was diagnostic of condyloma acuminatum in 10% cases, all cases were sexually active, fibroepithelial polyp seen in 6% women, squamous papilloma was found in 5% patients, other lesions were 6% in all. Malignancy was detected in only 1 case (1%). It was of squamous cell type.

The Vulvar Intraepithelial Neoplasia (VIN) is graded into 3 depending on the extent of epithelial thickness involved in neoplasia. Lesions may present as erythematous patches, verruciform growths or hyperpigmented plaques. They may be multiple involving large areas, may also include the perineum. The distinction between VIN lesions and early invasive SCC can only be done on histopathologic examination, hence necessitating a biopsy of all suspicious vulvar lesions<sup>9</sup>.

## CONCLUSION

This study highlighted the importance of vulvar lesions, its early diagnosis and treatment. Since it is a neglected subject, gaining knowledge about it is important.

Our observational study of 100 patients on spectrum of vulvar lesions enlists various lesions of vulva. Distinguishing between various lesions, benign variants and potentially malignant was challenging. Early diagnosis of the lesions and taking biopsy in suspected cases is of significance.

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