# Retrospective review characterizing a pediatric vulvar dermatology clinic

## Abstract

This study aims to characterize the diseases seen in a multispecialty pediatric dermatology-gynecology vulvar clinic at CNH. Vulvar dermatology is a field in which both dermatologists and gynecologists may lack sufficient experience and comfort. Relatively few vulvar dermatology clinics exist in the US and likely help to ameliorate that knowledge gap. Characterizing the diagnoses (and misdiagnoses) treated at the CNH vulvar dermatology clinic will help to provide insight into these knowledge gaps and benefit of multidisciplinary clinics. It is also likely that there are disparities in referrals to the vulvar dermatology clinic based on socioeconomic status and race. Comparing demographic data of patients seen in vulvar dermatology clinics compared to general dermatology clinic may provide insight into disparities to access to care. In addition, there may be ethnic and racial risk factors for vulvar dermatologic diseases that have not been described. The multicentric, multiracial patient population seen in this clinic will provide early insight into these unanswered questions.

## Methods and Materials

We conducted a retrospective review of 180 patient charts from pediatric patients seen at the joint dermatology-gynecology clinic at Children’s National Hospital, at least once between January 2016 and June 2020. Data collected from the charts included patient diagnosis, demographics, vulvar symptoms, and prior care related to the patient’s vulvar symptoms. Data was entered into a RedCap database and analyzed.

## Results

Among the 180 patients seen (mean age 6.89 ± SD 4.63), the three most common conditions seen in the clinic are as follows: pediatric vulvar lichen sclerosus (69.9%), vitiligo (21.69%), and vulvovaginitis (23.69%). In total, 83 conditions were evaluated in this multispecialty clinic. Approximately 17.8% of patients with pediatric lichen sclerosus and 38.9% of patients with vitiligo were misdiagnosed at least once. On average, from the time of symptom onset to a diagnosis, those with PVLS waited 14.58 months and those with vitiligo waited 10.29 months till diagnosis. Of those with PVLS who first received a misdiagnosis, 92.8% of the time the diagnosis was made outside of the dermatology-gynecology clinic. Of those with vitiligo who first received a misdiagnosis, 75.0% of the time the diagnosis was made outside of the dermatology-gynecology clinic. In the paper, epidemiological factors for the clinic as a whole and for the three most common diseases are discussed.

## Discussion

Vulvovaginal complaints in prepubertal girls is common and account for up to 80% of childhood visits to gynecologists. Some common complaints include vulvovaginal itching, irritation, rash, bleeding, and/or pain. Vulvovaginal complaints encompass a wide variety of conditions. According to the literature the most often encountered include vulvovaginitis (infectious and noninfectious), lichen sclerosus, genital ulcers, labial adhesions, and urethral prolapse. However, this clinic saw a higher percentage of cases of lichen sclerosus. The higher percentage of African Americans/Blacks seen at this clinic may account for this finding.

All these diagnoses are benign (with LS holding a risk of vulvar cell squamous cell carcinoma risk later in life) and can often be managed in the outpatient setting with close and consistent follow-up. Frequently a diagnosis can be made with a thorough history and physical exam. Characterizing the diagnoses (and misdiagnoses) treated at the CNH vulvar dermatology clinic will help to provide insight into these knowledge gaps and benefit of multidisciplinary clinics.

## Conclusions

Our study addresses a gap in published information on pediatric vulvar symptoms and patient characteristics in a multispecialty dermatology-gynecology interdisciplinary clinic. The chart review highlights the variety of conditions seen and complex care faced in a pediatric dermatology-gynecology clinic, with emphasis on the risk for a delay in diagnosis when vulvar symptoms are misdiagnosed in patients seen outside of a dermatology-gynecology clinic. Clinically, training at the private pediatric care level is needed to help guide clinicians accurately diagnosing pediatric vulvar complaints.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Misdiagnosed (%)</th>
<th>Misdiagnosed by PCP (%)</th>
<th>Average time to diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lichen Sclerosus</td>
<td>17%</td>
<td>82%</td>
<td>14.58 months</td>
</tr>
<tr>
<td>Vitiligo</td>
<td>50%</td>
<td>67%</td>
<td>10.29 months</td>
</tr>
</tbody>
</table>

**References**


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