



## Research Letter

## A survey of practices and perceptions of vulvar biopsies in academic dermatology

**What is known about this subject in regard to women and their families?**

- Overall, vulvar dermatoses are underdiagnosed, and delayed diagnosis can lead to significant morbidity and decreased quality-of-life outcomes.
- The families of patients with lichen sclerosus should be educated that there is a genetic component for this condition and that early diagnosis is sometimes facilitated by tissue biopsy.
- There are no studies addressing dermatology provider levels of comfort with performing vulvar biopsies.

**What is new from this article as messages for women and their families?**

- More than half of respondents indicated some to no comfort with vulvar biopsies.
- Multiple challenges were indicated for not performing vulvar biopsies, including not routinely performing a vulvar examination.
- Further education for dermatologists on vulvar examinations and performing vulvar biopsies is necessary.

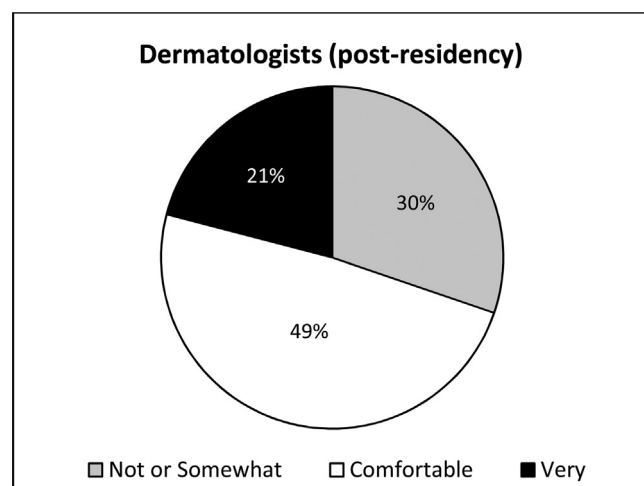


Fig. 1. Comfort level with vulvar biopsies

## Dear Editors:

Vulvovaginal disease is underrecognized by dermatologists, and patients with vulvovaginal disease are underserved. There is a need for increased education during training (Comstock et al., 2020; Venkatesan et al., 2012). Early diagnosis can prevent scarring, malignancy, sexual dysfunction, pain, and disfigurement, as well as improve quality of life. Vulvar dermatoses may present with non-specific findings and tend to be multifactorial; thus, a clinical diagnosis can be challenging and is often facilitated by tissue biopsy. Additionally, vulvar biopsies should be performed when there is concern for malignancy. Vulvar biopsies are more challenging because the vulvar skin and mucosa are thin, moist, and pliant, making a traditional shave biopsy difficult. It is also more fragile, particularly when inflamed, and care should be taken not to crush specimens. Thus, an understanding of vulvar anatomy and disease is crucial to ensuring the best technique and specimen. Because skin biopsies are one of the most common procedures performed by dermatologists, we sought to evaluate provider-reported comfort and practices with vulvar biopsies.

This was a nationwide, anonymous, online survey of dermatology residents and academic dermatologists in the United States. A 17-question survey was developed through REDCap and submitted between March and April 2021 using the Association of Program Directors listserv. The survey was exempted by the authors' institutional review board.

Seventy participants completed the survey. Thirty-five percent of respondents were dermatologists in practice for at least 6 years. The majority of respondents were female (67%) and from programs located in the U.S. Pacific region (44%; Supplement). Of those who had completed residency ( $n=43$  of 70), 51% were not trained to perform vulvar biopsies during their residency and 70% had performed <10 vulvar biopsies during residency (16% performed none). Overall, 50% reported some to no comfort with vulvar biopsies (18% not comfortable; Table 1). Of those who completed residency, 30% had some to no comfort (7% not comfortable; Fig. 1).

Among respondents, the most common modality to sample vulvar tissue was a punch, followed by a tangential shave. Fewer respondents chose a modified shave technique, referred to as a stitch/snip biopsy, which is often used by vulvar dermatology experts (Edwards and Lynch, 2012).

Our results highlight that further education on vulvar biopsies for dermatology residents and dermatologists is important, with more than half of respondents indicating some to no comfort with

**Table 1**  
Selected Survey Questions and Results.

Select survey questions		n (%)
Did you receive training on vulvar biopsies during residency?	No	37 (56)
	Yes	33 (50)
Number of biopsies performed during residency	None	12 (18)
	1–5	33 (50)
	6–10	12 (18)
	11–20	3 (5)
	21–49	4 (6)
	>50	1 (2)
	Unsure	5 (8)
Frequency of biopsies performed	More than once a week	1 (2)
	Weekly	1 (2)
	Monthly	4 (6)
	Few times a year	32 (48)
	Yearly	5 (8)
	Less than once a year	17 (26)
Comfort level with vulvar biopsies	Never	10 (15)
	Not at all	13 (20)
	Somewhat	22 (33)
	Comfortable	25 (38)
Challenges to performing biopsy	Very	10 (15)
	No challenges	12 (18)
	I do not usually perform a vulvar examination	13 (20)
	Technical difficulty of procedure	11 (17)
	Time constraints	4 (6)
	Patient preference	13 (20)
	Lack of formal training	9 (14)
	Belief that histopathologic evaluation will not change management	2 (3)
Would additional education make you more likely perform vulvar biopsies?	Other	6 (9)
	Very likely	25 (38)
	Somewhat likely	25 (38)
	Not at all likely	6 (9)
Educational modality	Unsure	14 (21)
	Self-guided online modules	17 (27)
	Expert lecture	22 (35)
	Rotation with a vulvar specialist	22 (35)
	Other	2 (3)

vulvar biopsies. Seventy percent believed that additional education would make them more likely to perform a vulvar biopsy, with 27% preferring self-guided online modules, 35% expert lecture, and 35% rotation with a vulvar specialist. The authors believe that increasing knowledge of vulvar dermatologic conditions and anatomy, as well as increased experience in vulvar examinations, would promote provider comfort with vulvar biopsies.

There was no correlation between gender and comfort performing vulvar biopsies. Lack of comfort may be related to inadequate formal training and low volumes during residency. Respondents selected multiple challenges in performing vulvar biopsies, including not routinely performing a vulvar examination (22%; Table 1). There are likely various reasons for this, including the assumption that other providers (e.g., gynecology, urology, primary care) are performing vulvar examinations and lack of individual comfort with examining the vulva.

Limitations of our study include the low survey response rate and inclusion of only academic dermatologists. Future studies should focus on eliciting a greater response rate and evaluating dermatologists in private practice and other health care models.

Diagnosis of vulvovaginal conditions is often facilitated by biopsy and dermatologists should be comfortable with vulvar skin/mucosa biopsies. We advocate for the development of additional educational resources to train providers on how to perform vulvar biopsies.

#### Conflicts of interest

None.

#### Funding

None.

#### Study approval

The author(s) confirm that any aspect of the work covered in this manuscript that has involved human patients has been conducted with the ethical approval of all relevant bodies.

#### Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.ijwd.2021.10.011.

#### References

- Comstock JR, Endo JO, Kornik RI. Adequacy of dermatology and OB-GYN graduate medical education for inflammatory vulvovaginal skin disease: A nationwide needs assessment survey. *Int J Womens Dermatol* 2020;6(3):182–5.
- Edwards L, Lynch PJ. *Genital dermatology atlas*. 2nd ed. Philadelphia, Pennsylvania: Lippincott Williams & Wilkins; 2012.
- Venkatesan A, Farsani T, O'Sullivan P, Berger T. Identifying competencies in vulvar disorder management for medical students and residents: A survey of U.S. vulvar disorder experts. *J Low Genit Tract Dis* 2012;16(4):398–402.

Sheila Panez BA  
University of California, Irvine, School of Medicine, Irvine, California

Samantha Sattler BA  
Albany Medical College, Albany, New York

Allison S. Dobry MD  
*University of California, San Francisco, Department of Dermatology,  
San Francisco, California*

Christina N. Kraus MD\*  
*University of California, Irvine, Department of Dermatology, Irvine,  
California*

\*Corresponding Author: (C. Kraus)  
E-mail address: [ckraus@hs.uci.edu](mailto:ckraus@hs.uci.edu) (C.N. Kraus)  
Revised 19 October 2021