

Cryosurgical Management of Symptomatic Vulvar Vestibular Papillomatosis

Sir,

Vulvar vestibular papillomatosis (VVP) is an anatomic or functional variant of the normal genital mucosa commonly mistaken for genital warts. We report this case to highlight the need for dermato-venereologists to become familiar with this rare entity, thus avoiding unnecessary concerns and investigations, and to consider cryotherapy as a treatment modality in symptomatic cases.

A 21-year-old woman married for 1 year presented with small raised lesions on her vulva associated with pruritus of 6-month duration. She and her partner were in a monogamous relationship without any history of extramarital sexual contacts. Examination showed multiple, small, soft, shiny, smooth-surfaced, non-tender monomorphic papules 1–3 mm in diameter with bases separate from each other, colored same as that of adjacent mucosa, symmetrically distributed over inner aspect of labia minora and vestibule with negative acetowhite test [Figure 1]. These were the typical clinical findings of VVP. Dermatoscopy using Heine NC2 Dermatoscope (Heine Optotechnik, Herrsching, Germany; $\times 10$ magnification, polarized mode) showed uniformly sized teardrop-shaped juxtaposed

papillae with separate bases with irregular vascular pattern in the core confirming the diagnosis.

A single course of cryotherapy with liquid nitrogen spray gun consisting of three 15–20 s freeze-thaw cycles delivered by open spray successfully removed majority of the lesions [Figure 2] without any long-term sequelae. The patient experienced mild pain and watery discharge after the procedure, which settled in 4–5 days. The patient was symptom free during 6 months of follow-up.

VVP, also known as pseudocondylomata, is now believed to represent a morphological variant of normal genital epithelium. Due to the clinical resemblance of VVP to genital wart, the former is often misdiagnosed or over diagnosed as human papillomavirus (HPV) infection, leading to inappropriate investigations and treatment. But distinction between the two entities has been well established by *in situ* hybridization and polymerase chain reaction studies.^[1,2] Clinical, dermatoscopic, and histopathological findings differentiating the two conditions have been summarized in Table 1.^[1,3,4] Our case satisfied the clinical criteria of VVP suggested by Moyal-Barracco *et al.*,^[1] which was



Figure 1: Multiple, small, soft, shiny, smooth-surfaced monomorphic papules with bases separate from each other, colored same as that of adjacent mucosa seen over inner aspect of labia minora



Figure 2: Majority of the lesions cleared after single sitting of cryotherapy (photograph taken 1 month after treatment)

Table 1: Clinical, dermoscopic, and histopathological differences between vestibular papillomatosis and condylomata acuminata

Features	Vestibular papillomatosis	Condylomata acuminata
Sites involved	Confined to the vestibule	Not confined to the vestibule, can occur anywhere on genitalia or in the anal region
Distribution	Symmetrical or linearly arranged	Usually asymmetrical and randomly arranged
Color	Pink, same as adjacent mucosa	Pink, red, white or hyperpigmented
Surface	Smooth and shiny	Rough and irregular
Base	Individual lesions remain separate at the base	Individual lesions fuse at the base
Shape of individual lesion	Teardrop shaped	Cauliflower or broccoli shaped
Consistency	Soft	Firm to hard
5% Acetic acid test	No whitening	Whitening present
Dermoscopic findings	Abundant, irregular linear vascular channels in transparent core of uniform-sized cylindrical papillae with bases separate from each other	Conglomerate vascular structures within multiple, irregular projections with tapering ends that are broader and more white than vestibular papillae, arising from a common base
Histopathology	Normal mucosal epithelium covering finger-like protrusion of loose connective tissue. Some vacuolated cells resembling koilocytes may occur, as heavily glycogenated epithelial cells in genital mucosa get vacuolated during tissue processing. These cells are confined to upper layers of mucosal epithelium	Hyperkeratosis, parakeratosis, papillomatosis, and acanthosis. Large epithelial cells with perinuclear vacuolization and hyperchromatic, round nuclei extending into the deeper portions of stratum malpighii. Presence of koilocytes

confirmed dermoscopically; hence, investigations such as biopsy and HPV testing were avoided.

Asymptomatic and symptomatic variants of VVP have been observed. Latter variant is associated with symptoms such as vulvar pruritus, burning, and dyspareunia, which makes the patient anxious interfering with their sexual activity and work.^[5] For patients with asymptomatic lesions, reassurance regarding benign nature of the condition would be sufficient. However, for patients with excessive concern desiring removal or those presenting with symptomatic lesions, we propose cryotherapy as a promising treatment option as our patient gave an encouraging result. Our patient has been kept under follow-up to assess any regrowth or development of new lesions.

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Conflicts of interest

There are no conflicts of interest

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REFERENCES

1. Moyal-Barracco M, Leibovitch M, Orth G. Vestibular papillae of the vulva. Lack of evidence for human papillomavirus etiology. Arch Dermatol 1990;126:1594-8.

2. Beznos G, Coates V, Focchi J, Omar HA. Biomolecular study of the correlation between papillomatosis of the vulvar vestibule in adolescents and human papillomavirus. Sci World J 2006;6: 628-36.

3. Kim SH, Seo SH, Ko HC, Kwon KS, Kim MB. The use of dermoscopy to differentiate vestibular papillae, a normal variant of the female external genitalia, from condyloma acuminata. J Am Acad Dermatol 2009;60:353-5.

4. Xu X, Erickson L, Chen L, Elder DE. Diseases caused by viruses. In: Elder DE, Elenitsas R, Johnson BL, Murphy GF, Xu X, editors. Lever’s histopathology of the skin. 10th ed. Philadelphia, PA: Lippincott Williams & Williams; 2009. pp. 637-65.

5. Growdon WA, Fu YS, Lebherz TB, Rapkin A, Mason GD, Parks G. Pruritic vulvar squamous papillomatosis: evidence for human papillomavirus etiology. Obstet Gynecol 1985;66: 564-8.

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