Clinicopathological Challenge

Wart are These Lesions?

A 45-year-old woman presented to this clinic with multiple skin colored, greyish and hyperpigmented non-scaly papules and plaques with smooth to verrucous surface at places on her labia majora for the past few years [Figure 1]. The lesions were mildly pruritic at times and the itch increased during menstruation. They had grown gradually, and she did not report any color change, ulceration, or bleeding from them. She and her father had multiple seborrheic keratoses on the trunk for the past many years. Her husband did not have any such lesions. Both denied any premarital and extramarital sexual contact. There was no history of malignancies in the close family. Her gynecological examination was normal. Examination of anal, perianal and oral mucosa was normal. VDRL and ELISA for HIV were negative. Differential diagnoses of seborrheic keratoses, condyloma acuminata and Bowenoid papulosis were considered. A 3-mm punch biopsy specimen was obtained and sent for histopathological examination.

Histopathological Findings

Biopsy showed moderate psoriasiform hyperplasia of the epidermis with thickening of the rete ridges. The epidermis showed haphazard arrangement (wind-blown appearance) with focal crowding of keratinocytes [Figure 2a]. Mild-to-moderate nuclear pleomorphism and scattered mitotic figures could be appreciated above the intact basal cell layer. Occasional dyskeratotic cells were visible. Melanin incontinence could be seen in the underlying dermis [Figure 2b].

Diagnosis

Bowenoid papulosis of vulva

Bowenoid papulosis (BP) is an uncommon human papilloma virus-induced entity affecting both sexes predominantly caused by HPV types 16, 18 and 33.[1] Though a few reports of BP in Indian males are reported, there appears a visible paucity of description of female cases in Indian dermatology literature possibly owing to its asymptomatic nature, embarrassment experienced by the female and probably because many may be misdiagnosed as condyloma acuminata. It is estimated to occur in 5/100,000 women/year and is said to be increasing with the highest peak occurring between the ages of 31-49 years.[2] Though solitary presentations are rare, they most often present as multiple skin colored to reddish-brown to deeply hyperpigmented even black plaques or papules with a smooth or verrucous surface as in the index case and occasionally show confluence.[1] They can also occur over perineal, perianal and anal mucosa and therefore examining these areas in the patient and her partner is essential. Rarely extragenital BP on oral mucosa, face, neck, and finger, with or without genital involvement have been reported.[3]

It would not be wrong to state simply that lesions of BP look like warts to the unaided eye and resemble Bowen’s disease when seen under the microscope. Histologically, BP is characterized by ‘Bowenoid dysplasia’ i.e., acanthosis with full-thickness epidermal atypia.[1,3] Multiple metaphase mitoses are usually seen above the basal layer as well as scattered dyskeratotic and multinucleated keratinocytes showing pleomorphism. Parakeratosis and hypergranulosis may also be seen. The basement membrane is always intact. The dermis shows perivascular lymphocytic infiltrate. Immunohistochemistry for P16 protein can be done where the facility is available as it has high sensitivity and specificity for detecting BP. It is expressed strongly and diffusely through out the full thickness of epidermis.

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Seborrheic keratoses and vulvar condylomata, the other two differential diagnoses we considered were ruled out by the histology in this case. While the differentiation from seborrheic keratoses was evident, the main differences between BP and condylomata are the dysplastic keratinocytes in all layers of epidermis and loss of maturation of keratinocytes in the former. There is a striking similarity in the histological features of BP and Bowen’s disease (BD) and differentiating one from the other may be impossible. However, subtle differences between BP and BD include prominent metaphase mitosis and basophilic inclusion bodies with a surrounding halo in stratum granulosum and stratum corneum in the former.\[3\] Multiple lesions developing in a relatively short duration in this 45-year-old patient favored the diagnosis of BP. Bowenoid papulosis, earlier called ‘usual vulvar intraepithelial neoplasia’ (uVIN),\[2\] is now considered a high-grade squamous intraepithelial lesion,\[4\] it is prudent to follow up such lesions regularly and start recommended treatment despite their tendency to resolve spontaneously in some cases.\[3\]

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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