

What Is Your Diagnosis?



The patient noticed the development of pigmented papules in the genital region over several months. He thought the first papule was a mole but expressed concern that other lesions had developed. His girlfriend recently was told that she had an abnormal Papanicolaou test.

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The Diagnosis: Bowenoid Papulosis



Bowenoid papulosis is a human papillomavirus (HPV)–related lesion with strong histologic resemblance to carcinoma in situ.¹ Without appropriate clinical correlation, a pathologist is likely to render a diagnosis of squamous cell carcinoma in situ and the patient may be subjected to overly aggressive treatment.

Clinical Diagnosis

Lesions of bowenoid papulosis often resemble condylomata acuminatum but are more likely to be smooth, sessile, and hyperpigmented. They may be misdiagnosed as nevi or atypical moles by healthcare providers who are unfamiliar with bowenoid papulosis. Lesions frequently are multiple and may be longstanding or of recent onset. The diagnosis requires a biopsy for confirmation. A lesion that clinically resembles a venereal wart but is reported as squamous cell carcinoma in situ when biopsied most likely represents bowenoid papulosis.

All pigmented papules and plaques of the genital region should be carefully examined. Carcinoma in situ also is frequently pigmented in the genital region. When in doubt, a biopsy is always appropriate in the setting of a pigmented genital lesion.

Giant lesions suggestive of venereal warts should be biopsied to rule out verrucous carcinoma, so-called giant condyloma or Buschke-Löwenstein tumor. These carcinomas may evolve from other

HPV-induced lesions. They require a high index of suspicion, as they display little atypia. Because atypia is minimal, they may be misdiagnosed as benign even when biopsies are obtained. Because of their bland appearance, they were once considered a pseudo-malignancy² but are really verrucous carcinoma in sheep's clothing.

Pathogenesis

Bowenoid papulosis is related to HPV infection, specifically HPV-16,³ in contrast to common condylomata acuminatum, which is associated most commonly with HPV-6. As both lesions are related to HPV infection, it is not surprising that lesions of bowenoid papulosis clinically resemble genital warts. Lesions of bowenoid papulosis more often are smooth, sessile, and hyperpigmented, all features that suggest the need for biopsy. Individual lesions present a histologic spectrum that ranges from lesions resembling warts with only scattered atypical cells to lesions histologically indistinguishable from Bowen disease.⁴ Active communication between the clinician and pathologist is essential to avoid misdiagnosis.

Loss of S-100 protein–positive dendritic (Langerhans) cells is seen in both bowenoid papulosis and penile Bowen disease and may result in a diminished immune response to the tumor cells.⁵ This loss of immune surveillance may be involved in tumor spreading.

Treatment

Destructive modalities that ensure removal of the lesion but preserve surrounding tissue are appropriate for lesions of bowenoid papulosis. Many lesions can be treated with liquid nitrogen cryosurgery. Laser vaporization, shave biopsy, and simple excision also may be appropriate. Surgical procedure for bowenoid papulosis is complicated by the multicentric nature of the lesions.⁶

Some lesions of bowenoid papulosis have responded to subcutaneous injections of interferon alfa.⁷ Topical imiquimod also has been used with some success, though it is not indicated for use in bowenoid papulosis. Oral retinoid therapy shows some promise as an off-label adjunctive treatment.⁸

Normal-appearing tissue often harbors the virus and patients must be followed for recurrence. The risk for conversion to carcinoma is low but presents a real risk if lesions are not destroyed. Both the patient and sexual partners should be regularly examined for signs of HPV infection or genital cancer.

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