

## Atypical Pearly Penile Papules Mimicking Primary Syphilis

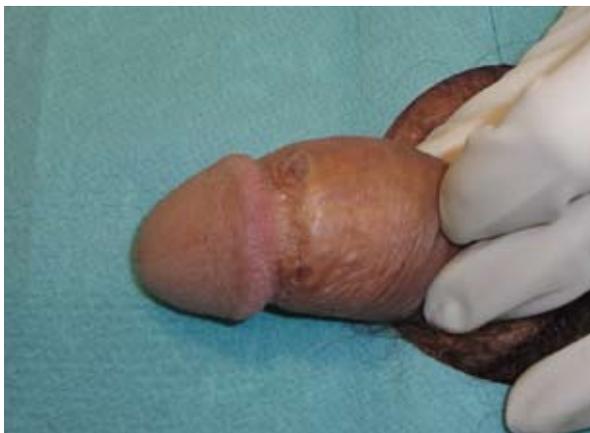
Pearly penile papules (PPP) are benign and common lesions in the male population. Several terms have been used to describe this entity, including Tyson glands, hirsutoid papillomas, papilla in the corona glandis, hirsutis papillary corona of the penis, corona capilliti, and pink pearly papules (1,2). PPP commonly develop after puberty and their incidence decreases with age (1). The prevalence of this condition is estimated to be 14%-48%, the incidence being higher among black males and uncircumcised men (1,3). Their histologic features are characteristic of angiofibroma and are typically localized to the corona and the sulcus of the penis but can also affect the shaft (1). PPP may resemble other entities such as condylomata acuminata, ectopic sebaceous glands, molluscum contagiosum and lichen nitidus, leading to hazardous and unwarranted treatments (1,2).

Pearly penile papules are commonly seen in clinics for sexually transmitted disease (STD) and are a cause of anxiety in adolescence and young manhood (4). In some studies about PPP, human papillomavirus (HPV) was suggested to play a role (5), however, Høgewoning *et al.* showed that there is no association between PPP and HPV (3).

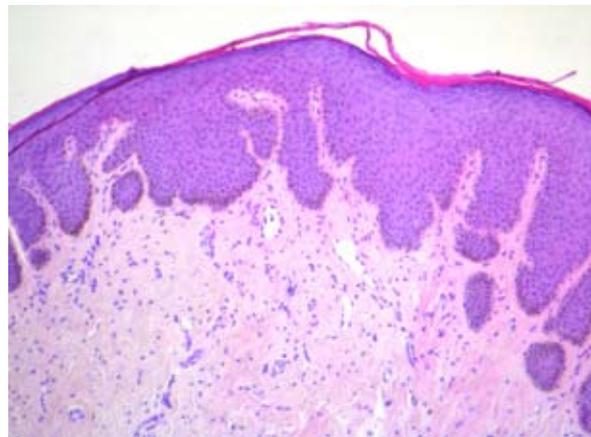
Several modes of therapy are used for treating PPP, including cryotherapy, electrodesiccation, podophyllin, curettage, and carbon dioxide laser ablation; however, treatment should be reserved for patients who have cosmetic or psychological concerns from the appearance of this benign entity (2).

We report on the case of a 41-year-old Caucasian man with a history of several months of two non-painful, smooth papules with a central depression, elevated borders, and annular shape on the dorsal surface of the penis near the neck (Fig. 1). Physical examination of the genitalia was otherwise unremarkable. Before his referral, the lesions had been misdiagnosed as primary syphilis and treated with penicillin without response.

Because of the uncommon presentation and the patient's fear of having a sexually transmitted disease, a skin biopsy was performed. Histologic examination revealed dermal ectatic venules embedded in a collagenous stroma with several stellate fibroblasts, recovered by a dome shaped acanthotic epidermis (Fig. 2). These findings matched the histologic features of angiofibroma, and the diagnosis of PPP was established. The benign nature of these lesions was



**Figure 1.** Pearly penile papules. Clinical features: two smooth annular shaped papules.



**Figure 2.** Pearly penile papules. Histologic features of an angiofibroma (hematoxylin and eosin  $\times 40$ ).

explained to the patient and therefore no treatment was necessary.

PPP may vary in shape, size, and color (1), usually range from 1 to 2 mm in width and 1 to 4 mm in length, and can be acuminate, dome, or annular shaped (6). Their color may be pink, white, yellowish, or rarely almost translucent, and they are commonly oriented in a single or double row on the corona, which may partially or completely encircle the glans (1). There are reports of profound proliferating PPP arranged radially from the meatus to the corona, spreading all over the glans (7), ectopic PPP on the penile shaft of a young boy without typical lesions on the corona (6), and typical coronal lesions on the ventral aspect of the penis in an adult man (8). However, PPP localized exclusively near the neck of the penis with the abovementioned morphology and without typical lesions in other localizations in an adult man, as in our patient, has not yet been described. This case thus represents an atypical and rare presentation of PPP that could be confused with primary syphilis or condylomata acuminata.

The clinical manifestations of syphilis, the "great imitator" of skin diseases, are variable in appearance and have been reported for centuries (9). HPV is the most frequent sexually transmitted viral infection in the world (10) and a common reason to seek medical attention in sexually transmitted disease clinics.

Physicians should be aware of the different clinical presentations of PPP and when the diagnosis is uncertain, a biopsy should be performed.

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