An Atlas of Lumps and Bumps, Part 1

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EDITOR'S NOTE: This article is part 1 of a series describing and differentiating dermatologic lumps and bumps. Subsequent installments will be published in upcoming issues of *Consultant360*.

Plantar Warts

Plantar warts (verrucae plantaris) are common cutaneous lesions on the plantar aspect of the foot that are caused by infection of keratinocytes by the human papillomavirus (HPV) types that are trophic to human skin. HPV types 1, 2, 4, 27, 57, 60, and 65 are the most common causes of plantar warts.[1-3] The annual incidence rate of plantar warts is estimated to be 14%.[4,5] The condition occurs most commonly in children and adolescents.[5] Females are affected more often than males.[2]

Plantar warts shed HPV which can spread to other body sites (autoinoculation) or other people by close physical contact.[5] Plantar warts can also be acquired by walking barefoot on contaminated surfaces such as public shower floors, swimming pools, gym mats and locker rooms.[3] Moist environments and disruption of the epidermal barrier (eg, dry cracked heels) increase the chance of infection. Children with a family member or many classmates with warts have a higher risk of developing plantar warts themselves. The virus, however, does not spread to histologically dissimilar sites, such as the oral cavity and genitalia. Although the condition is seen primarily in healthy individuals, those with immunodeficiency are at increased risk for acquiring plantar warts and find it harder to clear their warts.


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Plantar warts can occur anywhere on the plantar surface of the foot. They occur more common on pressure points, such as the heel, toes, and metatarsal heads. Plantar warts can occur singly or in multiples.[3] Typically, plantar warts present as multiple, firm, hyperkeratotic papules that may coalesce into a thickened "cobblestoned" plaque disrupting normal dermatoglyphics (**Figure 1**).[5] The lesions are usually yellow, gray-brown, or flesh-colored.[5] Tiny black dots may be visible at the surface of the wart (**Figure 2**).[5] These black dots represent thrombosed, dilated capillaries. Trimming the surface keratin makes the capillaries more prominent, and pinpoint bleeding may be seen. Visualization of thrombosed capillaries and pinpoint bleeding along with loss of normal dermatoglyphics are pathognomonic of a plantar wart and help to differentiate the plantar wart from other cutaneous lesions such as a corn or callus.[5]

Plantar warts often become callused and tend to grow into the foot (**Figure 3**) as opposed to the general tendency of warts to be exophytic.[6] Plantar warts are generally asymptomatic but can be painful while walking, depending on size and location.[2] ■

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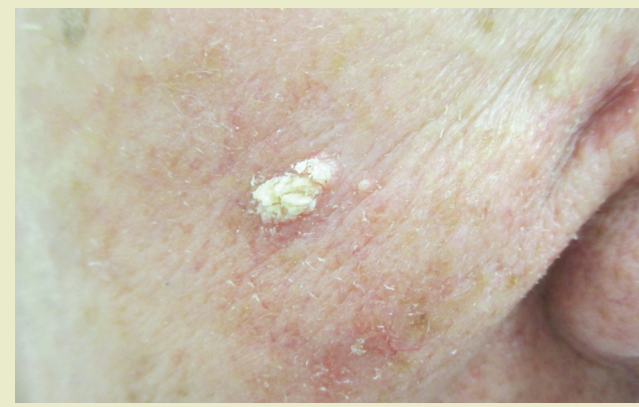
Filiform Warts

Filiform warts are caused by human papillomavirus (HPV). Of the more than 150 strains of HPV, only types 1, 2, 4, 27, and 29 are known to cause filiform warts. HPV can spread through skin-to-skin contact and contact of contaminated fomites and objects. The risk of transmission is increased if there is an open wound, continued exposure to the virus, or a weak immune system.[1]

Typically, filiform warts present with long, fingerlike projections that extend a few millimeters from the skin (**Figure**).[2] They can be yellow, pink, brown, or flesh-colored. Filiform warts are typically isolated and do not generally form in clusters. The face and neck are the most common sites of predilection[1,2]; hence they are also known as facial warts.

Filiform warts are generally asymptomatic. Depending on the sites (eg, skin folds and genital areas) of involvement, filiform warts may cause irritation, pruritus, soreness, and bleeding. ■



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