

Clinicoepidemiologic study of verruca plana at a tertiary care center

Sir,

Human papilloma virus skin infections presenting as verruca plana (human papilloma virus types 3, 10) affect many people and are commonly encountered in dermatological practice. Previous studies have centered on particular age groups (childhood or adolescence), but gender and age distributions, disease activity and koebnerization seem overlooked.¹⁻³

A cross-sectional study was carried out in the outpatient department of Maharana Bhupal Government Hospital, Udaipur, for 6 months (October 2013 to March 2014). The diagnosis was made on clinical grounds, and all the 96 patients diagnosed to have verruca plana during this period were included in the study. The study patients comprised 54 (56.2%) men and 42 (43.8%) women; the male:female ratio was 1.28:1. The age of patients ranged from 3 to 45 years, with a mean of 21.6 years. Of 63 (65.6%) patients who belonged to ≥ 18 years age group, 34 were men and 29 were women. Among the 33 (34.4%) patients aged < 18 years, 20 were men and 13 were women. The male and female ratio for < 18 and ≥ 18 years' age groups was not significantly different ($P = 0.523$).

The duration of verruca plana ranged from 15 days to 4 years. Six (6.3%) patients had plane warts for a duration of < 1 month, 57 (59.4%) patients for 1–6 months, 20 (20.8%) patients for 6–12 months and 13 (13.5%) patients for > 1 year.

The number of verruca plana varied from a few to over 100. None of the patients had single lesion, 17 (17.7%) had 2–10 warts, 48 (50%) patients had 11–50, 24 (25%) patients had 51–100 and 7 (7.3%) patients had > 100 lesions.

The most common site of involvement was the face (73; 76% patients) followed by the face and upper limb (12; 12.5%) and upper extremities alone (6; 6.3%). The trunk alone was involved in 2 (2.1%) patients, while another 2 (2.1%) patients had involvement of the face and trunk. One (1%) patient had lesions on the upper and lower extremities.

In most (76; 79.2%) of the patients, the lesions were asymptomatic. Eighteen patients (18.8%) complained of itching, 1 (1%) patient each complained of burning, and both itching with burning.

The lesions were progressive in 60 (62.5%) patients. The suspected predisposing factor was shaving at barber's shop in 11 (11.5%) patients followed by shaving by self (7; 7.3%) and threading (1; 1%). Koebnerization was seen in 61 (63.5%) patients.

The male preponderance observed in our study is contrary to a cross-sectional study conducted by Kyriakis *et al.*, in which out of a total of 275 patients, 110 (40%) were men and 165 (60%) patients were women and male: female ratio was 0.67.⁴ Female preponderance has also been observed in a study by Al-Hamdi *et al.* with the male:female ratio being 0.87.⁵ The lower female preponderance seen in our study could be possible due to dependency of women on the family members for coming to the health center, as the hospital attendance predominantly comprised rural population.

The age of patients ranged from 3 to 45 years with a mean of 21.6 years. The majority (65.6%) of the patients belonged to the age group of 18 years and above. The age range of 3–45 years has been previously noted in a study conducted by Al-Hamdi on 250 patients of verruca plana with the mean age being 13.6 years.⁵ Kyriakis *et al.* found that the mean age was 21.5 years.⁴ However, the peak prevalence was noted in the 6–10-year age group. Ning *et al.* have reported the age range of 16–42 years with a mean of 24.8 years.⁶ The possible explanation for higher prevalence of verruca plana in postadolescent group in our study could be the benign nature of the disease and also parents' perception that it will resolve on its own. Also, facial warts are seemingly disfiguring and more of concern to an adolescent. Further, precipitating events such as shaving, threading and other cosmetic procedures can play a role in this age group.

The duration of verruca plana in our study patients varied from 15 days to 4 years, with the majority of patients (59.4%) reporting within 1–6 months. Other studies have revealed variable observations with range of 2–60 months,⁷ 1–36 months⁵ and 1 month to 6 years.⁶ Only 6 (6.3%) patients reported in the first month. Delayed reporting may possibly be due to asymptomatic nature of the disease.

The face, back of hands and shins are the sites of predilection for verruca plana. The face was the most common (76%) site involved in the index study. Predilection for face is in accordance with other studies by Kyriakis *et al.*,⁴ Al-Hamdi *et al.*⁵ and Ning *et al.*⁶

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Koebnerization was seen in 61 (63.5%) patients. Shaving and threading were thought to be the predisposing factor by 19 patients for the occurrence of verruca plana. Infected persons doing these procedures or infected threads or blade may inoculate viral particles. Although koebnerization is a well-known phenomenon with verruca plana, the actual incidence has not been elucidated before. Whether it makes any difference in the treatment response of the patient remains an enigma.

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Conflicts of interest

There are no conflicts of interest.

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