


ORIGINAL ARTICLE**STUDY OF SOCIO-DEMOGRAPHIC DETAILS OF VERRUCA VULGARIS PATIENTS- AN INSTITUTIONAL BASED STUDY**Sumit Kaur¹, Sumir Kumar², B.K.Brar³, Sukhmani Kaur Brar⁴¹Junior Resident, ²Associate Professor, ³Professor Dept of Dermatology GGSMC Faridkot, ⁴Assistant Professor Department of Dermatology, Adesh Institute Of Medical Science & Research Bathinda**ABSTRACT:**

Background: Verruca vulgaris (cutaneous warts) is a common skin problem. These are benign epithelial proliferations caused by the human papillomavirus (HPV) and often affects the hands and feet. Aim of the present study was to evaluate the socio-demographic details of VERRUCA VULGARIS patients of Faridkot Punjab. **Material and Methods:** The study was Conducted in the Department of Dermatology, Venereology and Leprology of Guru Gobind Singh Medical College and Hospital, Faridkot. Diagnosis was made on the basis of clinical examination. Firm, papular lesions with rough horny surface without pedicle and rounded lesions, sharply defined with a rough keratotic surface, surrounded by a smooth collar of thickened horn were considered for the present study. **Result:** Most of the patients were working professionals (60%) and from Urban areas (77.5% of the total). Hands were the most common site of involvement. Mean number of verrucae was found to be 13.90. **Conclusion:** There is a need to create awareness regarding cure of the disease so that among rural population so that they can approach the health care centers for various treatment procedures. Maximum patients (37.5%) had disease since 6-11 months. Mean duration of disease was found to be 13.72 months.

Keywords-Socio-demographic; Verruca vulgaris; Occupational

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INTRODUCTION

Skin diseases are common contributors to disease morbidity worldwide. They have significant effects on treatment costs and psychological distress. Verruca vulgaris (cutaneous warts) is a common skin problem which are benign epithelial proliferations caused by the human papillomavirus (HPV) and often affects the hands and feet.¹ Warts can occur in any age group, but the peak incidence is seen in adolescents and early adulthood between 12-16 years. Prevalence varies from 2-20% in school children.² These are caused mainly by HPV- 1, 2, 27 and 57 and less commonly by HPV 4, 29, 41, 60, 63 and 65.³ Immunocompromised patients, organ transplant recipients on immunosuppressive therapy show increased prevalence. They spread by direct or indirect contact and autoinoculation or heteroinoculation are also factors in transmission. Transmission by fomites also appears to be one of the modes of acquisition. Basal keratinocytes are the primary target of infection, hence minor abrasion and maceration predisposes to HPV infection. Increased frequency of plantar warts are found in swimming pool workers, common hand

warts in individuals with habitual sucking of fingers or biting nails and beard area warts in shavers. Occupational handlers of meat, fish and poultry also have higher prevalence than other workers.² The presented study conducted was to evaluate the socio-demographic details of verruca vulgaris patients of Faridkot Punjab.

MATERIAL AND METHODS

The present cross-sectional study was conducted among a total of forty patients of verruca vulgaris who reported outpatient Department of Dermatology, Venereology and Leprology of Guru Gobind Singh Medical College and Hospital, Faridkot. A written informed consent was taken from each patient before enrolling in the study and ethical clearance was obtained before the commencement of the study. Diagnosis was made on the basis of clinical examination. Firm, papular lesions with rough horny surface without pedicle and rounded lesions, sharply defined with a rough keratotic surface, surrounded by a smooth collar of thickened horn were considered for the present study. Patients of both sexes between the age twenty to fifty years and

patients having multiple verruca vulgaris (>5 warts) were included in the study. A detailed history and clinical examination was conducted in each case and recorded on a prescribed Performa.

All the observations were tabulated. Chi square test was used to analyze the results statistically. P-value <0.05 was kept as significant. All analysis was done using SPSS 17.0 version.

RESULTS

Males outnumbered females, with male to female ratio of 2.1:1. The difference was found to be statistically significant (table 1). Mean age of the patients in study population was found to be 28.87 years. Married patients (52.5%) outnumbered unmarried (47.5%) counterparts. No significant difference was observed statistically (table 2). 60% of patients in our study were professionals. Teaching and service professionals were more as compared to other professionals like drivers, hair dresser, etc (table 3). 77.5% patients in our study were from urban area and 22.5% were from rural

area (graph 1). Predominantly hands were involved in majority of the patients though patients having warts involving any area of body, with or without hands and/or feet dominated the study. Maximum number of patients had verrucae since 6-11 months. No significant difference was observed statistically. Mean duration of disease in study population was found to be 13.72 months ($X^2 - 3.40$, $df - 3$, $P \text{ value} > 0.05$). Maximum patients had lesions in the range of 6-10. The minimum number of lesions found in our study was 5 in two patients while maximum number was 82 in one patient. Mean number of lesions in the study population was 13.90 ($X^2 - 24.35$, $df - 2$, $P \text{ value} < 0.05$). The difference was found to be statistically significant. 47.5% of our patients were asymptomatic. Among rest, the most common complaint was of itching in 11 (27.5%) cases. Itching with pain was observed in 9 (22.5%) and only pain in 1 (2.5%) patient. The difference was significant statistically.

Table 1: Gender wise distribution

Gender	Number	Percentage
Males	27	67.5%
Females	13	32.5%
Total	40	100%

$X^2 - 4.90$, $df - 1$, $p \text{ value} < 0.05$

Table 2: Marital status

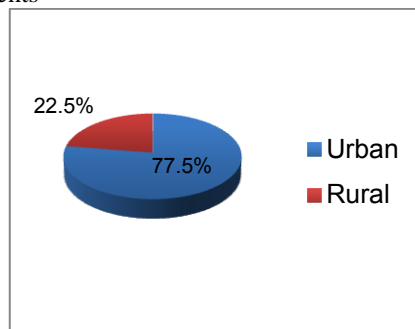
Marital status	Number	Percentage
Married	21	52.5%
Unmarried	19	47.5%
Total	40	100%

$X^2 - 0.100$, $df - 1$, $p \text{ value} > 0.05$

Table 3: Occupation wise distribution

Occupation	Number	Percentage
Students	9	22.5%
Teaching and service Professionals	13	32.5%
Other professionals	11	27.5%
Housewives	3	7.5%
Farmers	4	10%
Total	40	100%

Graph 1: Geographical distribution of patients



($X^2 - 12.10$, $df - 1$, $p \text{ value} < 0.01$)

Table 4: Distribution of warts (Anatomical site)

Site	Number	Percentage
Hand(U/L or B/L)	13	32.5%
Foot(U/L or B/L)	3	7.5%
Both hands and feet	8	20%
Other areas ± hands ± feet	16	40%

$X^2 - 9.80$, $df - 3$, p value < 0.05

Table 5: Duration of verrucae

Duration(months)	Patients(number)	Patients(percentage)
<6	8	20%
6-11	15	37.5%
12-23	9	22.5%
≥24	8	20%

Table 6: Number of verrucae

Number of verruca	Number of patients	Percentage of patients
5	2	5%
6-10	18	45%
11-20	15	37.5%
>20	5	12.5%

$X^2 - 17.80$, $df - 3$, P value < 0.05

Table 7: Associated symptoms

Symptoms	Number of patients	Percentage of patients
Itching	11	27.5%
Pain	1	2.5%
Itching with pain	9	22.5%
Nil	19	47.5%
Total	40	100%

$X^2 - 16.40$, $df - 3$, p value < 0.05

DISCUSSION

Pattern of skin disorders are affected by various factors such as genetic, race, religion, occupation, nutrition, habits as well as geographical factors like season and climate also influences the occurrence of increased prevalence of certain type of skin disorder in a particular geographical location.⁴

In our study, males 27(67.5%) outnumbered females 13(32.5%). This data was in concordance with study carried out by Rao SKM et al⁵ whereas Sharma S et al⁶ studied demographic details of patients with warts and reported that 13 were males and 14 were females with male to female ratio of 1:1.17. The number of married 19(47.5%) and unmarried 21(52.5%) patients in our study was comparable.

The occupational profile in our study was varied. Majority of the patients were in professional work (32.5% teaching and service personnel and 27.5% as other professionals), 9(22.5%) were students, 3(7.5%) were housewives and 4(10%) were farmers. This can be attributed to increasing awareness about the disease among professionals and willingness to undergo treatment procedure. This data was different from previous epidemiological studies by Laxmishaet C al⁷ and Kushwaha P et al⁸ where majority of the patients were students.

31(77.5%) patients in our study were from urban area while only 9(22.5%) were from rural area.

Warts are most common at sites of trauma, such as the hands and feet, and probably result from inoculation of virus into minimally damaged areas of epithelium.⁹ In the present study, according to the site affected, 32.5% patients had involvement of hands only (U/L or B/L), 7.5% cases had involvement of feet (U/L or B/L), 20% had both hands and feet involved and 40% had involvement of any other body area with or without hands and/or feet. Overall, hands were involved in maximum patients. Laxmisha C et al⁷ found involvement of upper extremity in 30%, lower extremity in 22.9%, and face in 25% cases.

In our study, 15(37.5%) cases had the disease for 6-11 months duration, 8(20%) were having disease since <6 months, 9(22.5%) since 12-23 months and 8(20%) since ≥24 months.

Maximum patients (45%) had number of verrucous lesions in the range of 6-10. 5% patients had 5 lesions, 37.5% had lesions in the range of 11-20, while 12.5% had >20 lesions. The minimum number of lesions per patient found in our study was 5 while the maximum number noted was 82. Majority (47.5%) of the cases in our study were asymptomatic. The most common complaint noted in the symptomatic patients was of itching in 11(27.5%). Itching with pain was seen in 9(22.5%) and only pain in 1(2.5%) patient. Pain can be attributed to trauma induced by

itching. Warts are diagnosed clinically though in atypical, subclinical and dysplastic cases various investigations can be helpful. These include histology, cytology, electron microscopy, immunohistochemistry, immunodiagnosis, gene detection using nucleic acid hybridization, southern blotting, polymerase chain reaction, filter in situ hybridization, in situ polymerase chain reaction and ligase chain reaction etc.¹⁰ Various conventional modalities for treatment include application of salicylic acid, lactic acid, podophyllin and podophyllotoxin, formalin, glutaraldehyde, vinca alkaloids, retinoic acid, cidofovir, caustics, silver nitrate, phenol, vitamin D analogues, Cantharidin and 5-fluorouracil.¹¹ The physical modalities available are electrosurgery (electrodessication and electrofulguration), blunt dissection, curettage, cryotherapy, CO₂ laser, hyperthermia, photodynamic inactivation, radiotherapy and radiofrequency ablation. Both topical and physical destructive modalities focus on ablation of wart tissue. These modalities destroy the wart containing tissue but do not stimulate the immune system against the pathogen. Polymerase chain reaction based studies have revealed the presence of viral DNA in normal surrounding tissue. Hence, recurrence is commonly observed. For the effective treatment of warts stimulation of the immune system by exposing the virus to immune mediators seems to be a better approach. Hence various modalities which stimulate the immune response against the virus have been tried. These include Zinc, Levamisole, Interferons, Intralesional injections Candida, BCG, MMR, etc and autoimplantation therapy. The immune response generated is helpful in widespread and permanent clearance of warts.¹²

CONCLUSION

Our study concluded that most of the patients were working professionals (60%) and from Urban areas (77.5% of the total). There is a need to create awareness regarding cure of the disease so that among rural population so that they can approach the health care centers for various treatment procedures. Hands were the most common site of involvement. 32.5% had only hand (U/L or B/L) involved, 20% had both hands and feet involved and 40% had involvement of any other body area with or without hands and/or feet. Maximum patients (37.5%) had disease since 6-11 months. Mean duration of disease was found to be 13.72 months. Maximum (45%) patients had number of verrucae ranging from 6-10. Mean number of verrucae was found to be 13.90. Majority (47.5%) of the patients were asymptomatic while itching (27.5%) was the most common symptom observed among symptomatic.

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