



AN EPIDEMIOLOGICAL STUDY ON ANOGENITAL WARTS

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ABSTRACT **Background:** Anogenital warts (AGWs) are a common, highly infectious disease caused by the human papillomavirus (HPV), whose high recurrence rates contribute to direct medical costs, productivity loss and increased psychosocial impact. This study mainly concentrates on incidence of AGWs that attended the outpatient department in year 2017-18. **Aim:** To study the incidence of warts and their epidemiological aspects in patients attending the STD OPD. **Settings And Design:** This was an observational study which was done in department of dermatology. **Methods and Materials:** The study was carried out for 12 months and it included 102 patients. Pregnant females were excluded from study. **Statistical Analysis:** The statistical analysis of descriptive data that included the number of percentages were done for all categories. **Results:** There are 102 cases and majority of them belonged to the age group 21-30 years, out of them 57 are males and 45 are females. A majority of AGW were seen in students. **Conclusions:** Viral AGWs were common in younger age groups. males outnumbered the females.

KEYWORDS : Anogenital warts, Condylomata acuminata

INTRODUCTION

External Anogenital warts also known as condylomata acuminata, are one of the most common forms of sexually transmitted diseases affecting the general population. The present descriptive study carried out in population of vishakapatnam district of Andhrapradesh aimed to assess the epidemiological aspects of Genital warts. Human papilloma virus (HPV) is the most frequent sexually transmitted viral infection in the world, which can result in malignant cancers or benign skin and mucosal tumors, including Genital warts (AGWs). Until 19th century warts were believed to be a form of syphilis or gonorrhoea. The term WARTS coined by Melnick in 1962 to denote a group of infections caused by DNA viruses. GWs are categorized as a clinical Genital HPV infection because they manifest as visible lesions, namely as single or multiple papules on the vulva, perineum, perianal area, vagina, cervix, penis, anus, scrotum and urethra. Clinical symptoms may include pruritus, burning, vaginal discharge and bleeding. Four distinct sub-types of GWs have been described: condylomata acuminata (pointed warts), flat/ macular lesions, papular, and keratotic lesions. The first two sub-types are mainly found on moist, non-keratinized epithelia, while the latter two usually present on keratinized epidermis. HPV 6 and 11 account for the majority of GW cases. GWs are highly infectious; approximately 65% of individuals with an infected partner develop GWs within 3 weeks and 8 months. In rare cases, GWs can be associated with malignant lesions, namely Buschke Lowenstein tumors. The Median time between infection with HPV 6 or 11 and the development of anogenital warts was 11 to 12 months among males and 5 to 6 months among females.

MATERIALS AND METHODS:

Study design:

102 consecutive patients with warts, who attended the Department of DVL during year 2017-2018 were selected for the study.

Inclusion criteria:

Patients who presented with all morphological types of warts. A detailed history regarding the age, sex, occupation, duration of the disease and family history of the patients was obtained. A dermatological examination was done, taking care to note the morphology and the distribution of the warts. A written consent was obtained from all the patients. Clearance from the ethical committee was also obtained.

The **statistical analysis** of the descriptive data that included the number and percentages was done for all the categories.

RESULTS

The total number of people attended STD O.P in the year 2017-2018 are 1376 in number. Out of them the patients diagnose with anogenital warts are 102. Therefore the incidence of genital warts are 7.41% for the year 2017-2018 shown in table 1. Out of them males are 57 and females are 45, therefore male to female ratio is 6.1 : 5, shown in table 2. The respective incidence of genital warts in males and females also calculated by taking the total number of males and females attended to the STD OPD in the respective year table 3, and 4. Study is also directed to correlate age wise distribution of patients and most patients are seen in age 21-30 shown in table 5. Comorbidities like HIV and syphilis also taken into consideration and their correlation with genital warts is shown in table 6.

In present study, there were more patients who were suffering from warts for between 1-7 months. The minimum duration observed was 01 Month and maximum was 05 Years.

DISCUSSION

Incidence:

Incidence of genital warts was highest among males when compared to females as shown in table 3, and 4 when compared in any age group. Clearly incidence is high in age group between 21-30 years followed by 31-40 years.

Age:

In the present study, more number of patients (33.3%) belongs to the age group of 21-30 years, followed by 32.22% belongs to the age group of 11-20 years. Berth Jones and Hutchinson¹, in their study on 400 patients of warts, found 54% patients in the age group of 11-25 years. Thus, in the present study, as in the studies which are mentioned above, warts were commonly seen in the younger age group, that too, more in the age group of 21-30 years, which was college going age group. The chances of contact were more in this age group.

Sex:

In the present study, among the 102 patients, 57 were males and 45 were females, who constituted 55.88% and 44.11% respectively. In a study on warts in males and females, which was conducted by Azevedo J et al², males were affected more when compared with females. Thus, in the present study, as in the studies which are mentioned above, warts were commonly seen in males. The number of male patients was more. This could be attributed to the changing trend of a cosmetic interest in males, which contributed to their reporting for the treatment and also

the above two studies date few years back.

Duration:

The duration of warts is variable; a greater number of male patients attended the hospital at an early stage of the disease than the females. In the present series, 30 patients presented with 1–3 months of duration of the disease. The earliest presentation was at 1 month and the longest duration was 5 years. Laxmisha C et al³, in their study on 81 children of warts, found a duration of between 1-2 months in 29 cases (35.8%). In adults, the duration of the presentation was between 1-2 months in 25cases (39.6%). Thus, the results of the present study were similar to those of the studies which are mentioned above. The shortest duration was 2 months, while the longest duration of 7 years was reported by Bushan Kumar et al., which was more or less similar to that in the present study

Anatomical location:

Of the 102 genital warts, most (69.8%) had an anatomic site specified, including urethra, penis, vulva, vagina, or cervix . Most female participants had genital warts on the vulva (63.4%), cervix (21.0%), or vagina (6.5%). The most common identifiable specific location for male incident genital warts was the urethra/penis.

Occupation:

Most of the cases belong to the age group between 21-30 years. More than half of them are students which is the most important factor found in this study. As highest number were between 21-30 years followed by 31-40 years, many people were students followed by other people who were either unemployed or employed working in private sector or government sector.

Sexual practices:

Out of 27 males in age group 21-30 years, 18 males haven't used any barrier contraception and out of 22 females, 12 females said they haven't used any method of contraception. 5 males from 21-30 years and 7 males from 31-40 years have said to be associated with multiple partners. 3 females from 21-30 years and 4 females from 31-40 years have said to be associated with multiple partners.

CONCLUSIONS:

Viral AGWs were common in younger age groups. males outnumbered the females. Sex with multiple partners and sex without contraception play key role in transmission. In females vulva and in males penis are the common sites of anogenital warts.

Safe sexual practice is important in preventing anogenital warts.

Table-1:

Incidence of Genital Warts:

Out of 1376 patients attending STD OP year 2017-18

Genital Warts	102
Other STI	1274

Incidence : Number of cases of Genital Warts/Number of total cases x 100

$$102/1376 \times 100 = 7.41\%$$

To correlate with gender

Out of 1376 patients attended, male to female data as follows

Males	702
Females	674

Overall gender correlation with genital warts in 102 patients

Males	57
Females	45

Males to females ratio:

$$57:45 = 6.1:5.$$

Incidence in males :

$$57/702 \times 100 = 8.1\%$$

Incidence in females :

$$45/674 \times 100 = 6.67\%$$

Table-2: Age wise distribution:

	10-20 years	21-30 years	31-40 years	41-50 years	51-60 years	61-70 years
Male	5	27	18	3	3	1
Female	4	22	12	6	1	

Table-3: Association with other STIs:

	Total	VDRL		HIV	
		Positive	Negative	Positive	Negative
Males	57	5	52	11	46
Females	45	4	41	8	37

Table-4: Occupation:

Occupation	No. of patients
Students	49
Job holders	35
Housewives	14
Retired	4
Total	102

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