

Genital Warts in North-West of Iran

¹Afshar Ramezanpour and ²Ramazan Fallah

¹Department of Dermatology, Zanjan University of Medical Sciences, Zanjan, Iran

²Department of Social Medicine, Instructor of Biostatistics,
Zanjan University of Medical Sciences, Zanjan, Iran

Abstract: Human papilloma virus (HPV) infection is one of the most common sexually transmitted infections in the world. In genitalia, it causes a broad spectrum of lesions, from wart to intraepithelial neoplasia and carcinoma. The objective of this descriptive study was the distribution of the infection in our region based on gender, age, marital status and high risk sexual behaviors. Eighty one patients with genital warts (male 71, female 10) were recruited to the study. The age range was 7-62 years old. Most of them were 25-35 years old. About %37 married and %63 single patients were observed to have high risk sexual behaviors. Based on sex about 41 men (%57.7) and 5 females (%50) had multiple partners. Genital warts are a health problem in our region for both single and married patients. Therefore, educational programs in school and family should be performed by healthcare workers. Also vaccination program (like those carried out in western countries) is strongly recommended in order to optimize these measures.

Key words: Carcinoma • Genitalia • Human papillomavirus • Sexual activity • Wart

INTRODUCTION

Human papilloma virus (HPV) is one of the most common sexually transmitted infections in the world. The incidence of this infection has been on the rise in recent years. It is estimated that approximately 6 million new HPV infections are acquired each year in the United States alone and prevalence data suggest that as many as 24 million American adult may be infected with HPV. Unfortunately, there is little public awareness and knowledge about the infection and its sequelae [1, 2]. Genital infection (warts) occurs most commonly by sexual contact with individuals who harbor clinical or subclinical lesions. Infection may remain subclinical for long periods or may grow to large fulminant masses that could persist for months or years [3]. Some of these lesions especially those induced by high risk genotype of viruses (16, 18) can transform into malignant lesions. HPV has been implicated in cancer of cervix, vulva, vagina, penis, anus and oropharynx. Although most of the genital warts are caused by low risk genotype (6, 11) viruses [4, 5]. However the presence of any type of genital warts especially in women should raise the possibility that the patient may also be infected with high risk HPV and prompt screening for genital intraepithelial neoplasia [6].

Since there is no documented record of the disease in our country, we decided to examine the distribution of the infection in our patients based on demographic characteristic and also high risk sexual behaviors.

MATERIALS AND METHODS

This descriptive study was conducted on patients who referred to skin clinic of Valiasr Hospital in Zanjan (North west of Iran) from 2009-2010.

81 patients who suffered from genital warts were included in this study. The diagnosis of the infection was made mainly clinically by dermatologist, although in some cases biopsy were done. Data based on sex, age, high risk sexual behaviors and marital status were collected and then analyzed using SPSS soft ware (version 16). This study was approved by ethic committee of Zanjan Medical University.

RESULTS AND DISCUSSION

Eighty one patients with genital warts (male 71, female 10) were recruited to the study. The age range was 7-62 years old. Most of them were 25-35 years old (Table 1). About 46 patients (%56.8) were married. %37

Table 1: Age distribution of the patients

Age			
<25	25-35	>35	Total
17	25	4	46
37.0%	54.3%	8.7%	100.0%
34.6%	50.6%	14.8%	100.0%

Table 2: Marital status of the patients and high risk sexual behavior

High risk sexual behavior	Married		Total
	Married	Single	
Yes	17	29	46
	37.0%	63.0%	100.0%
No	29	6	35
	82.9%	17.1%	100.0%
Total	46	35	81
	56.8%	43.2%	100.0%

Table 3: Sex distribution of the patients and high risk sexual behavior

High risk sexual behavior	Gender		Total
	Male	Female	
Yes	41	5	46
	89.1%	10.9%	100.0%
No	30	5	35
	85.7%	14.3%	100.0%
Total	71	10	81
	87.7%	12.3%	100.0%

married (12 male and 5 female) and %63 single patients were observed to have high risk sexual behaviors (Table 2). Based on sex about 41 male (%57.7) and 5 female (%50) had multiple partners (Table 3).

Our study revealed that most of the patients' ages ranged between 25 to 35 years old, it is the same as those in other studies [7, 8, 9]. In our research, most of the cases were male, only %8.1 were female which proved to be different from those reported in other studies [10]. This may be due to smaller number of females involved, presence of higher carrier or asymptomatic state and smaller number of female patients referred to male dermatologist because of cultural and religious ideas in our country. Like other reports, the most predominant rout of transmission was sexual contact [1, 2]. In our study most of the cases had multiple partners; of them 41 were male and 5 female.

The interesting point was high percentage of single patients (%63= 29 n.) who had sexual activity which can not be justified given our religious and culture.

Therefore, there are a few important questions that we need to raise here. Why did single patients have sexual activity before marriage? And why did married cases have multiple partners? What we can say, these are caused by lack of information or access to information about HPV.

It is worth mentioning that having high risk sexual behavior, as one of the factors studied, was taken into consideration based on the patients' remarks. It can be regarded as one of the limitation of our study.

Finally genital warts are a health problem in our region and the sequels of the infection especially cervical carcinoma in women must be considered seriously and educational programs in school and family should be performed by healthcare workers. Also vaccination program (like those carried out in western countries) is strongly recommended in order to optimize these measures.

ACKNOWLEDGMENTS

The authors declare that there is no conflict of interest.

REFERENCES

1. Troitter, H. and A.N. Burchell, 2009. Epidemiology of mucosal human papilloma virus infection and associated disease. *Public Health Genomics*, 12(5-6): 291-730.
2. Anorlu, R.I., 2008. What is the significance of the HPV Epidemic? *Can J. Urol.*, 15(1): 3860-5.
3. Krinbauer, R., P. Lenz and M.M. Okun, 2008. Human papillomavirus. In: J.L. Bologna, J.L. Jorizzo and R.P. Rapini (eds.). *Dermatology*. USA: MOSBY Publishing.
4. Androphy, E.J. and D.R. Lowy, 2008. Warts. In: K. Wolff, L.A. Goldsmith, S.I. Katz, B.A. Gilchrist, A.S. Paller and D.J. Lefell, (eds.). *Fitzpatrick's dermatology in general medicine*. USA: McGraw-Hill Publishing.
5. Cox, J.T., 2006. Epidemiology and natural history of HPV. *J. Fam. Pract.*, Suppl: 3-9.
6. Sterling, J.C., 2010. Virus infections. In: T. Burns, S. Breathnach, N. Cox and C. Griffiths, (eds.). *Rook's textbook of dermatology*. UK: Blackwell Publishing.
7. Scheinfeld, N. and D.S. Lehman, 2006. An evidence-based review of medical and surgical treatments of genital warts. *Dermatol Online J.*, 13(3): 5.

8. Dinh, T.H., M. Sternberg, E.F. Dunne and E. Markowitz, 2008. Genital warts among 18 to 59 year-olds in the United States, national health and nutrition examination survey, 1999-2004. *Sex Transm Dis.*, 35(4): 357-60.
9. Jimenez-Vieyra, C.R., 2010. Prevalence of condyloma acuminata in women who went to opportune detection of cervicouterine cancer. *Ginecol obstet Mex*, 78(2): 99-102.
10. Partridge, J.M. and L.A. Kotsky, 2006. Genital human papillomavirus infection in men. *Lancets Infect Dis.*, 6(1): 21-31.