

A Comparison of Israeli Jewish Women with Genital Warts (Condilimata Acuminata) to Cervical Cancer Patients Regarding the Presence of Selected Risk Factors

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Abstract

Risk factors for HPV infection and cervical cancer are similar in other populations. They include early coitarche, multiple partners and smoking. The prevalence of Genital Warts (GW) is high in the Israeli Jewish women while the incidence of cervical cancer is persistently low. The purpose of the present study is to compare Israeli Jewish women with GW to those with uterine Squamous Cell Cervical Cancer (SCC) with regard to selected risk factors.

Women with GW and women with SCC diagnosed during 2000-2012 filled out a prestructured questionnaire containing queries regarding demographic data, and data regarding reproductive factors, sexual habits and smoking. A comparison between the two groups regarding these variables was performed.

The study group comprised 78 women with GW and 86 SCC patients. Significantly more women with GW were younger than 29 years, were born in Israel, and were single and nulligravid. Significantly fewer women with GW conceived before the age of 29 and had 6 or more children. These findings are explained by the younger age of the GW patients. However, regarding the main risk factors for cervical cancer, there was no significant difference between them and SCC patients regarding the number of sexual partners, smoking habits, and there was a significant excess of women with GW with coitarche at 17 years or less.

Our data indicate that the risk factors for the presence of GW in Israeli Jewish women are similar to those with cervical cancer and thus they may be at risk for this neoplasm.

Genital Human Papillomavirus (HPV) types are classified as low risk and high risk, according to the association with epithelial cancers. Among the more than 100 HPV types that have been described only 4 types are responsible for the majority of anogenital lesions. Approximately 90% of genital warts (GW- condilomata acuminata) are caused by HPV 6 or 11, and up to 70% of cervical cancers are caused by HPV 16 or 18 [1]. In other populations the risk factors for HPV infection are similar to those for SCC namely early coitarche, multiple partners and smoking. The prevalence of GW is high in the Israeli Jewish [2] and similar to that in other countries [3], while the incidence of cervical cancer is persistently low [4].

The purpose of the present investigation was to compare Israeli Jewish women with GW to those with uterine Squamous Cell Cervical Cancer (SCC) with regard to selected risk factors.

Keywords: Genital warts; Condilomata acuminata; Cervical cancer

Material and Methods

Women with vulvar GW referred for laser treatment to our outpatient clinic and women with histologically proven SCC diagnosed during the period 2000-2012 filled out a prestructured questionnaire containing queries regarding the following variables: age, place of birth, marital status, reproductive variables, and age at coitarche, number of partners, smoking and habits. Regarding age at coitarche and number of partners the form was filled out by each individual without additional probing.

A comparison of rate of these variables in women with GW and the rate of the same variables in SCC patients was performed after institutional review board (Ethics Committee) approval. Differences were calculated by the chi square analysis or by Fisher's exact test when appropriate.

Results

Table 1 shows the distribution of age, place of birth, marital status and reproductive variables in GW and SCC patients. Highly significantly more GW patients than SCC patients were in the <29 age group were born in Israel, were single, nulligravid and had no children. The distribution of age at coitarche, number of life time partners, smoking habits and level of education in GW patients and in SCC patients is presented in Table 2. There was no difference between GW and SCC patients regarding these variables.

Discussion

Our data indicate that there was no difference between women with GW and SCC patients with regard to the main risk factors for these two entities namely, age at coitarche, number of partners and smoking habits. The significantly higher rate of Israeli born women, of single and nulligravid women and of women without children in those with GW compared to SCC patients, is obviously due to the significantly younger age of the former.

A high rate of concomitant presence of GW and the presence of abnormal Papanicolaou ((Pap) smears and or the presence biopsy proven CIN of various degrees of severity has been reported from various

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	GW		SCC		P
	No.	%	No.	%	
Total	78	100.0	86	100.0	
Age					
<20	14	17.9	0	0.0	<0.001
20-29	44	56.4	5	5.8	<0.001
30-39	15	19.3	27	31.4	0.07
40+	5	6.4	54	62.8	<0.001
Place of birth					
Israel	56	71.8	36	41.8	<0.001
Other	18	23.1	47	54.7	0.01
Not recorded	4	5.1	3	3.5	NS
Marital status					
Single	39	50.0	11	12.8	<0.001
Married	24	30.8	43	50.0	0.01
Divorced	10	12.8	20	23.3	NS
Widowed	3	3.85	10	11.6	0.04
Not recorded	2	2.6	2	2.3	NS
Age at 1 st pregnancy (yrs)					
<20	16	20.5	32	37.2	0.02
20-29	19	24.4	37	43.0	<0.001
30-39	2	2.6	7	8.1	NS
Nulligravida	37	47.5	4	4.7	<0.001
Not recorded	4	5.1	6	7.0	NS
No. of pregnancies		50.0			
0	39	21.8	4	4.7	<0.001
1-2	17	20.5	24	27.9	NS
3-5	16	2.6	25	29.1	NS
6+	2	5.1	31	36.0	<0.001
Not recorded	4		2	2.3	NS
No. of children		61.5			
0	48	20.5	7	8.1	<0.001
1-2	16	15.4	44	51.2	<0.001
3-5	12	0.0		30.2	0.02
6+	0			7.0	0.01
Not recorded	2			3.5	

NS: Not Significant

Table 1: Distribution of age, place of birth, marital status and reproductive variables in women with Genital Warts (GW) and Cervical Cancer (SCC) patients.

western countries [5-7]. Similar results were obtained in a retrospective study in Israel that comprised 74 patients with exophytic vulvar GWs, and a control group of 88 asymptomatic volunteers without evidence of exophytic vulvar GWs [8]. Atypical squamous cells of undetermined significance or low-grade squamous intraepithelial lesions were found in 10 (13.5%) women with exophytic vulvar GWs and only in 2 (2.3%) asymptomatic volunteers ($p < 0.05$). Cervical intraepithelial neoplasia was found in 9 women (8 with CIN 1 and 1 with CIN 3) with GWs and in none of the asymptomatic volunteers ($p < 0.05$). The authors concluded that there is an association between exophytic vulvar GWs and abnormal Pap smears and or positive cervical biopsy.

Some population based studies found that women of lower socioeconomic status are at higher risk for cervical cancer [9,10]. In contrast an Israeli population based study found no excess rate of lower socioeconomic status in SCC patients compared to the general population [11]. This was attributed to the universal-compulsory government-funded health care for Israeli citizens.

Level of education can be considered as a substitute of socioeconomic status. In the present study no difference between GW and SCC patients was observed. This may be taken to indicate that all population strata are equally exposed to both lesions.

The exact incidence of GW in the general Israeli population is actually not known. A retrospective database analysis of a large Israeli health management organization (Maccabi Health Care Services) covering about 1.8 million members found that during the period 2006-2008, the incidence of GWs among women in this population was 185/100,000 [2]. It thus seems that nowadays GWs are very common in Israel.

Cytological screening in Israel is only opportunistic and the exact proportion of women undergoing it is unknown. Nevertheless population based studies indicate that the incidence of SCC is persistently low being only about 5-6/100,000 [4]. The reason for this is obscure since, as in other populations the risk factors and their rate are similar in both diseases.

In conclusion, we found a similar rate of number of partners and of smoking habits in women with GW and in SCC patients. In addition there was a significant excess of early coitarche among women with GW. These data indicate that the risk factors for the presence of GW in Israeli Jewish women are similar to those with cervical cancer and thus they may be at risk for this neoplasm.

	GW		SCC		P
	No.	%	No.	%	
Total	78	100.0	86		
Age at coitarche					
≤17	36	46.1	27	31.4	0.05
18-19	23	29.5	35	40.7	NS
20+	17	21.8	23	26.7	NS
Not recorded	2	2.6	1	1.2	NS
No. of life time partners					NS
1	15	19.2	22	25.6	
2	13	16.7	23	26.7	
3	13	16.7	8	9.3	
4+	30	38.4	28	32.6	
Not recorded	7		5	5.8	
Smoking					NS
Yes	36	46.1	39	45.3	
No	37	47.5	43	50.0	
Not recorded	5	6.4	4	4.7	
Education					NS
None	1	0.0	4	4.7	
Grammar school	15	19.2	21	24.4	
High school	45	57.7	40	40.5	
Post graduate	16	20.5	19	22.1	
Not recorded	1	0.0	2	2.3	

NS: Not Significant

Table 2: Distribution of age at coitarche, number of partners, smoking habits and level of education in women with Genital Warts (GW) and in Squamous Cell Carcinoma (SCC) patients.

References

1. Munoz N, Bosch FX, de Sanjose S, Herrero R, Castellsagué X, et al. (2003) Epidemiologic classification of human papillomavirus types associated with cervical cancer. *N Engl J Med* 348: 518-527.
2. Shavit O, Raz R, Stein M, Chodick G, Schejter E, et al. (2012) Evaluating the epidemiology and morbidity burden associated with human papillomavirus in Israel: accounting for CIN1 and genital warts in addition to CIN2/3 and cervical cancer. *Appl Health Econ Health Policy* 10: 87-97.
3. Patel H, Wagner M, Singhal P, Kothari S (2013) Systematic review of the incidence and prevalence of genital warts. *BMC Infect Dis* 13: 39.
4. Menczer J, Kogan L, Liphshiz I, Barchana M (2009) Incidence trends of cervical adenocarcinoma in Israeli Jewish women A population-based study. *Acta Obstet Gynecol Scand* 88: 280-285.
5. Schauburger CW, Rowe N, Gundersen JH, Jensen DP, Chadbourn M (1991) Cervical screening with cervicography and the Papanicolaou smear in women with genital condylomata. *J Reprod Med* 36: 100-102.
6. Zehbe I, Strand A, Chua KL, Wilander E (1996) Cytological evaluation and molecular human papillomavirus test of cervical scrapings from women treated for condyloma. *Gynecol Obstet Invest* 42: 128-132.
7. Munk C, Svare EI, Poll P, Bock JE, Kjaer SK (1997) History of genital warts in 10,838 women 20 to 29 years of age from the general population Risk factors and association with Papanicolaou smear history. *Sex Transm Dis* 24: 567-572.
8. Sadan O, Bilevsky E, Shechter E, Levy T, Bachar R, et al. (2005) Occurrence of cervical intraepithelial neoplasia in generally healthy women with exophytic vulvar condyloma acuminata. *Infect Dis Obstet Gynecol* 13: 141-143.
9. Faggiano F, Partanen T, Kogevinas M, Boffetta P (1997) Socioeconomic differences in cancer incidence and mortality. *IARC Sci Publ* 138: 65-176.
10. Shields TS, Brinton LA, Burk RD, Wang SS, Weinstein SJ, et al. (2004) A case-control study of risk factors for invasive cervical cancer among U.S. women exposed to oncogenic types of human papillomavirus. *Cancer Epidemiol Biomarkers Prev* 13: 1574-1582.
11. Menczer J, Kogan L, Schejter E, Liphshiz I, Barchana M (2011) A population based study of selected demographic characteristics of Israeli-Jewish women with cervical squamous cell carcinoma. *Arch Gynecol Obstet* 283: 629-633.