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# DÖRTLÜ HPV AŞISININ VULVAR KONDİLOM NÜKSÜ ÜZERİNE ETKİSİ

# VACCINE FOR VULVAR CONDYLOMA RECURRENCE

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### ÖZET

Amaç: Dörtlü HPV aşısının vulvar kondilomlar üzerine proflaktik ve olası terapotik etkilerini değerlendirmeyi amaçladık.

**Materyal ve Metod:** Vulvovajinal kondilomu ve beraberinde değişik derecelerde servikal intraepitelyal lezyonu olan otuzüç hasta Zeynep Kamil Kadın ve Çocuk Hastalıkları Hastanesinde 2006-2014 yılları arasında kondilomları elektrokoterize edilerek tedavi edildi. Kondilom koterizasyonu sonrasında tüm hastalara 0, 2 ve 6 aylarda dörtlü HPV aşısı uygulandı. Hastalar 48 ay boyunca smear ve jinekolojik muayene ile takip edildi.

**Sonuçlar:** Tedavi edilen 33 kondilomlu hastadan 6'sında(%18) HGSIL, 4 hastada (%12) ASCUS, 8 hastada (%24) LGSIL ve 15 hastada (%46) normal sınırlarda smear incelemesi bulundu. Kolposkopi eşliğinde biyopsi sonucunda 3 hastada (%9) CIN1, 1 hastada (%3) CIN 3, 19 hastada (%88) normal histopatoloji bulundu. HPV tiplendirmeleri sonucunda 2 hastada (%6) HPV tip 16, 1 hastada (%3) HPV tip 35, 1 hastada (%3) HPV tip 56, 11 hastada (%54) düşük riskli HPV tipleri bulundu. Onsekiz hastada (%54) negatif HPV sonuçları bulundu. Kondilom rekürrensi 4 hastada (%12) izlendi. Takip süresinde sadece bir hastada LGSIL bulundu.

Tartışma: Aşılanmış bireylerde takipler süresince izlenen kondilom nüksleri, literatür ortalamasından oldukça azdır.

Anahtar Kelimeler: HPV, Aşı, Kondilom

#### **ABSTRACT**

Aim: We tried to assess both prophylactic and therapeutic efficacies of quadrivalent vaccine for vulvar condylomas.

**Material and Methods:** Thirty three women with vulvovaginal condylomas and variable degree of cervical preinasive lesions were treated with cauterization at gynecological oncology clinic of Zeynep Kamil Women and children's health Training and Research hospital between 2006 to 2014. After cauterization treatment, subjects were vaccinated by quadrivalent HPV vaccine at 0, 2 and 6th months from the treatment. Subjects were followed for 48 months by repeat cervical smears/year and routine urogenital examination.

**Results:** Among 33 cases with vulvar condylomas, there were 6 (18 %) cases with HGSIL, 4 (12 %) cases with ASCUS, 8 (24 %) cases with LGSIL and 15 (46 %) cases with normal cervical smear. Colposcopy directed biopsy revealed 3 (9 %) cases with CIN1, 1 (3 %) case with CIN3, 29 (88 %) cases with normal histopathology. Distribution of HPV screening results were as follows:HPV 16 in 2 (6 %) cases, HPV 35 in 1 (3 %) case, HPV 56 in 1 (3 %) case, there were 18 (54 %) cases with HPV negative result and 11 (34 %) cases with low risk HPV type. Condyloma recurrence was observed in 4 (12 %) cases. There was only 1 (3 %) case of women with abnormal smear (LGSIL) in control smears during 48 months of follow up.

**Conclusion:** In our study, we included only regularly followed women through 48 months period, and our data revealed lowered condyloma recurrence after cauterization and quadrivalent vaccination

Key words: HPV, Vaccine, Condyloma

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## **INTRODUCTION**

Genital condylomas are sexually transmitted diseases and originate from the cellular changes secondary to Human papilloma virüs (HPV) infection. (1). In some of the countries, genital condylomas are the most commonly encountered sexually transmitted diseases (2). HPV types 6 and 11 are responsible for the 90% of all genital condylomas (3). Each year, millions of women experience this disorder. According to the reports from case series, disease rates peak at 25-29 years in men and 20-24 years in women. (4). For most of the patients, condylomas are untreatable disorders with some symptoms and may lead to social life and cosmetic problems, (5). Itching, bleeding, burning sensation, sensitivity, vaginal discharges, pain, obstruction and psychological stress are indications for medical care. (6). Fourty percent of cases can spontaneously regress without treatment. (3). Treatment consist of both surgical and medical alternatives. Majority of the cases can be cured by treatment (35-100%) (7). Treatment approaches are effective only for the visible lesions, latent HPV infection can be seen in normally appearing cells and these cells may be responsible for reccurrent condylomas (8,9). In most of the cases with functional immune ststem, HPV infection is cleared within 2 years. (10). Recurrens rates vary between 20 to 30% in treated cases, according to the patient's medical condition, immune system and the extend of disorder. Cauterization is effective in 94-100% of the cases (11,12). Condylomas are skin lesions originated from virally infected cells so vaccination was proposed to prevent condyloma formation. At present two kinds of vaccines have been introduced to prevent HPV infection. One of the vaccines is bivalant vaccine including virüs like particles of HPV 16 and 18. The other one is quadrivalent vaccine for HPV 6, 11, 16 and 18. Besides having preventive effect against premalignant lesions and vaccines hve been used for condyloma prophylaxis (13). Quadrivalent vaccine was found to be prevent condyloma formation among 99% of women aged between 15 and 26 years old and high grade dysplastic lesions in women aged between 15-25 years old. (14,15). These two vaccines have been introduced to be used only for prophylaxis purposes.

In this study, we tried to assess both prophylactic and therapeutic efficacies of quedrivalant vaccine for vulvar condylomas. Material and Methods: Thirty three women with vulvovaginal condylomas and variable degree of cervical preinasive lesions were treated at gynecological oncology clinic of Zeynep Kamil Women and children's health Training and Research hospital between 2006 to 2014. In all subjects, condylomas were removed and cauterized by cut or coagulation mode of electrocautery from their roots. In cases with large lesions, surgical interventions were completed in two seperate steps. After cauterization treatment, subjects were vaccinated by quadrivalent HPV vaccine at 0, 2 and 6th months from the treatment. Subjects were followed for 48 months by repeat cervical smears/year and routine urogenital examination. All cases screened for HPV positivity and positive cases underwent high risk virus screening. All cases were followed for condyloma recurrence, HPV and cervical lesion persistence. Cases with preinvasive cervical lesions were managed according to the guideline introduced by American Society for Colposcopy and Cervical Pathology (ASCCP) 2013. Based on the suggestions from guideline, ASCUS (Atypical Squamous Cells of Undetermined Significance) cases with high risk HPV, LGSIL (Low grade squamous intraepithelial lesion), HGSIL (High grade squamous intraepithelial lesion), ASC-H (Atypical squamous cells - cannot exclude HSIL) were directed to colposcopy (Olympus OCS 500 (The Medical Systems Group of OLYMPUS AMERICA INC, MELVILLE, NY). During colposcopy, 3% asetic acid and lugol solutions were applied respectively. Biopsy was performed from the positively stained areas for acetic acid and areas negatively stained for lugol. In cases with positive biopsy results directed to excisional procedure.

Results: Smear results of cases were shown in table 1. Colposcopy directed biopsy revealed 3 (9%) cases with CIN1, 1 (3%) case with CIN 3, 29 (88%) cases with normal histopathology. Distribution of HPV screening results were as follows: HPV 16 in 2 (6%) cases, HPV 35 in 1 (3%) case, HPV 56 in 1 (3%) case, there were 18 (54%) cases with HPV negative result and 11 (34%) cases with low risk HPV type. Condyloma recurrence was observed in 4 (12%) cases. There was only 1 (3%) case of women with abnormal smear (LGSIL) in control smears during 48 months of screening.

#### Discussion

Life time risk to develope a condyloma lesion for a low risk woman was reported to be around 5 to 10%

Table 1 • Smear Results

	Normal Histopathology	ASCUS	LGSIL	HGSIL
Smear Results	15 (46 %)	4 (12 %)	8 (24 %)	6 (18 %)

(16,17). Anogenital condylomas are result from hpv viral infection and considered to be benign proliferative lesions and risk of sexual transmission is around 60%. (11). In 90% of cases, HPV 6 and 11 are the causitive agents reported in the literature (11,18). Success rates of commercially available vaccines for prophylaxis purposes are high enough to be offered in routine gynecological care (19). Due to proven success rates, most of the countries included HPV vaccines in their rotine vaccination programs. For example in Canada routine quadrivalent vaccine is offered for women aged between 9-45 years (20). While vaccination is suggested in women between 13-26 years in Australia (21). According to the reports from countries with routine HPV vaccination program, genital condyloma incidence was reported to be significantly decreased. The incidence decreased from 20.9% to 1.9% in .Australia where routine vaccination is suggested for every women < 21 years of age. Women with genital conylomas should also undergo careful cervical lesion screening. A previous report on 418 women with genital condylomas reported concurrent cervical lesions in 20.6% of cases (22). We did not observe cervical lesions (12%) in all cases with genital condylomas. We suggested quadrivalent vaccine for each case to prevent infection for high risk hpv infection. According to the literature, as we mentioned above, recurrence is observed in about 20% of cases with genital condylomas and most of the recurrences are observed within 3 months. (23). In our study, although the recurrences were not totally prevented by vaccination, compared to the rates from literature, recurrence rates in our study population is lower (12% vs. 20%). Condylomas are treated by cauterization with high success but also high recurrence rates, in our study we tried to assess the effect of vaccination on recurence rates after conventional cauterization approach. In our literature search we did not encounter any study on this issue. In a previous study recurrence rate of CIN-2 and CIN-3 was reported to be significantly lowered by vaccination after excisional procedure. (24). Lowered recurrence rates may be obtained by preventing denovo virus exposure after treatment. In Australia, decreased condyloma incidence after vaccination was thought to be result of HPV 6 and 11 infection prevention by quadrivalent vaccine and cross reaction to other types (25). The weakness of our study is retrospective nature. In our study, we included only regularly followed women through 48 months period, and our data revealed lowered but not totally prevented condyloma recurrence after cauterization and quadrivalent vaccination.

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