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# Vestibular papillomatosis mimicking genital warts in a pregnant woman

Gebe kadında genital siğili taklit eden vestibuler papillomatozis

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#### Abstract

Vestibular papillomatosis (VP) is considered as an anatomical variant of vulva and suggested as counterpart of pearly penile papules in males. The condition, approximately present in about 1% of women, is characterized by pink, smooth, small papules located around the labia minor and vaginal introitus. Although it usually shows no symptoms, some women suffer from complaints such as itching, burning, sensitivity, and pain. Despite human papillomavirus has been accused in the etiology, no outcomes are found to support this association. The similarity of VP to genital warts leads to unnecessary examinations and treatments, thus causing anxiety in patients. Here, we present a case with 37 weeks of pregnancy, who is planned to undergo cesarean section due to diagnosis of genital warts.

Keywords: Vestibular papillomatosis, vulvar vestibular papillomatosis, pregnancy, genital warts

## Öz

Vestibuler papillomatozis (VP), vulvanın bir anatomik varyantı olarak kabul edilmekte olup, erkekteki penil incimsi papülün kadındaki karşılığı olduğu düşünülür. Kadınların yaklaşık %1'inde görülmekte olup, labia minör ve vajinal introitus çevresinde yerleşen küçük, pembe, yumuşak papüllerle karakterizedir. Genellikle semptom oluşturmamakla birlikte, bazı kadınlar kaşıntı, yanma, hassasiyet ve ağrı gibi şikayetlerden yakınırlar. Etiyolojisinde insan papillomavirüs suçlanmakla birlikte, bu ilişkiyi destekleyen bulguya rastlanmamıştır. VP ve genital verrü benzerliği nedeniyle yapılan gereksiz inceleme ve tedaviler hastalarda anksiyeteye neden olabilir. Burada, genital verrü tanısı nedeniyle sezaryen ile doğum planlanan 37 haftalık gebe kadın sunuldu.

Anahtar Kelimeler: Vestibuler papillomatozis, vulvar vestibuler papillomatozis, gebelik, genital siğil

## Introduction

Vestibular papillomatosis (VP) is the benign, asymptomatic, anatomical variant of vulvar epithelium<sup>1</sup>. The prevalence is 1-33% with the highest between 21 and 56 years at reproductive ages<sup>14</sup>. Though human papillomavirus (HPV) is claimed as the causative agent previously, now VP is considered a benign entity with no connnection with HPV<sup>58</sup>. Regarding with the highest prevalence in reproductive age, the ratio of the occurrence or diagnosis during pregnancy is very high. In pregnant women, misdiagnosis of these harmless lesions as genital warts may lead to cesarian section, because of the risk of laringeal papillomatosis in infants born vaginally to mothers with active HPV infection. This condition can cause complications associated with invasive interventions and delay in the connection of the mother with

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the newborn. Here, we present a case with 37 weeks of pregnancy, who is considered to undergo cesarean section due the diagnosis of genital warts.

# **Case Report**

Twenty-three years woman old with 37 weeks of primigravid pregnancy admitted to the hospital with the complaint of genital swelling. The medical history of the case showed that swelling was developed at 35<sup>th</sup> weeks of pregnancy accompanying pain and burning sensation at the same area. Physical examination of the area showed multiple filiform papules, which are symmetrically located at the inner side of labia minor with a diameter of 1-2 mm, 1-3 mm long, and the same color with mucosa (Figure 1). The patient had no suspicious sexual contact. Acetowhitening was not detected after application of 5% acetic acid. Patient did not give permission to take a biopsy from the lesion. Therefore, the lesion was considered as VP after evaluating the findings obtained from the history, examination and acetic acid application. Spontaneous vaginal delivery was occurred at 39<sup>th</sup> weeks of pregnancy.

Written informed consent was obtained from the patient.



**Figure 1.** Multiple mucosa-colored filiform papules with linear and symmetrical distribution at the inner side of labia minora

## Discussion

VP was firstly described as pseudocondyloma of vulva by Altmeyer et al.<sup>9</sup> in 1981, and reported using various nomenclatures including hirsutoid papilloma of vulva, vulvar squamous papillomatosis, micropapillomatosis labialis, and squamous vestibular micropapilloma<sup>1-3,10,11</sup>. VP is considered as an entity associated with the elasticity of vulvar epithelium morphology<sup>3</sup>. Previously, HPV infection has been considered in the etiology, current techniques such as polymerase chain reaction and in situ hybridization revealed no association with HPV<sup>12,13</sup>. The clinical features of VP were defined by Moyal-Barracco et al.<sup>12</sup>. The clinical characteristics of VP papillomatosis and genital warts was shown on Table 1.

Lesions are usually asymptomatic, are pink, soft and filiform papules. Cases complaining various symptoms including itching, burning, stinging or pain have been reported<sup>1</sup>. In this case, the clinic symptoms were typical as burning and pain.

The histopathologic evaluation of VP shows finger-like extensions of fibrovascular tissue covered by vulvar epithelium. Vacuolated epithelial cells similar with koilocytes those occurred in some viral infections can be observed and this condition is caused by the vacuolization of epithelial cells containing high amounts of glycogen during tissue process<sup>1,2</sup>.

National medical data showed four cases with VP<sup>11</sup>. The clinical features of the these cases with VP found are shown on Table 2.

One of the widest case series presented internationally was conducted by Mseddi et al.<sup>14</sup> with eight cases. In this report, the ages of the patients ranged between 20 and 38, and seven of them were married.

Table 1. The clinical characteristics of vestibularpapilllomatosis and genital warts								
Clinical feature	Vestibular papillomatosis	Genital warts						
Distribution	Symmetrical, linear array	Irregular						
Palpation	Soft	Hard						
Color	Pink, as adjacent mucosa	Flesh-colored, pink, gray						
Base	Bases of individual projections remain separate	Projections can coalesce in a common base						
Acetic acid test	No circumscribed whitening	Circumscribed whitening						
Distribution	Symmetrical, linear array	Irregular						
Palpation	Soft	Hard						

Table 2. The clinical features of the cases with vestibular papillomatosis found in the national medical data							
Study name	Case	Age	Marital status	Circumstances of discovery	Clinical examination	Therapy for genital warts misdiagnosis	
Bilgiç et al. <sup>11</sup>	1	43	Married	Fortuitously	Multiple filiform papules, linear and symmetrically located at the inner site of labia minor with the same color with mucosa	-	
	2	36	Pregnant (28 weeks)	Fortuitously	As in the case 1	+ (cryotherapy two years earlier)	
	3	37	Married	Fortuitously	As in the case 1	-	
	4	32	Married	Fortuitously	As in the case 1	-	



Four of the patients had a history of dermatology admission with a suspicion of genital warts. In addition, half of the cases had symptoms, two with vulvar pruritus and two with dyspareunia. Three of the cases were pregnant (16, 28 and 30 weeks). Lesions were incidentally detected in half of the patients by themselves or a gynecologist.

VP is considered as an anatomical variant of vulva, hence no need to treat. However, a few cases have been reported by gynecologists and dermatologists treated with podophylline or cryotherapy due to the misdiagnosis of genital warts podophyllin or cryotherapy due to the diagnosis of genital warts<sup>3</sup>. As a consequence of unnecessary treatment for the genital warts, anxiety may be observed in women associated with the possibility of cervical cancer risk or contamination of the baby.

VP, a relatively frequent entity, should be kept in mind for the differential diagnosis of vulvar lesions thus leading to avoid unnecessary treatment and unwanted psychological effects on patients.

### Ethics

**Informed Consent:** Written informed consent was obtained from the patient.

**Peer-review:** Externally peer-reviewed.

### **Authorship Contributions**

Surgical and Medical Practices: A.O., H.Y.D., Concept: A.O., Design: A.O., Data Collection or Processing: A.O., H.Y.D., Analysis or Interpretation: A.O., Literature Search: A.O., Writing: A.O.

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