Abstract

**Introduction:** Vestibular papillomatosis is an anatomical variant of the vestibular mucosa that is rarely reported in the literature.

**Patients and Methods:** We conducted a retrospective study of 8 cases of VP diagnosed in the department of Dermatology of Hedi Chaker University hospital of Sfax. The study period went from June 2005 to January 2016.

**Results:** There are 8 women between the ages of 20 and 38 (average age 26). Seven of them were married. The unmarried patient denied any sexual activity. Four of them were sent for suspicion of condyloma acuminatum. Two patients were impaired by vulvar pruritus and two patients reported dyspareunia. Three patients were pregnant (term of 16, 28 and 30 weeks of amenorrhoea). A patient (unmarried) consulted for the unsightly aspect. The lesions were discovered fortuitously by the gynecologist (4 cases) or by the patient herself. The examination found multiple papillomatous, pinky, filiform, translucent lesions of the same color as the vulvar mucosa, arranged symmetrically on the internal slopes of the labia minora and each having a base separated from each other’s. The typical clinical appearance of the lesions and the symmetrical character allowed us to carry the diagnosis of vestibular papillomatosis.

**Discussion:** Vestibular papillomatosis is an uncommon benign condition which was first recognized by Altmeyer in 1981. This condition is very rare so that its incidence is difficult to estimate. It has been recorded in healthy young women in the range of 1 to 33%. The clinical resemblance and localization of VP has caused controversy about its etiology. VP has been reported with HPV but a consistent association has not been proven. Its diagnosis is based solely on clinical presentation. Five clinical parameters were suggested by Moyal-Barranco, et al. in order to facilitate the differential diagnosis of VP from genital warts. Dermatoscopy of VP reveals abundant and irregular vascular channels in the transparent core of cylindrical papillae. The Histology of this condition is characterized by finger-like protrusions of a loose connective tissue covered by normal vulvar epithelium. Some vacuolated epithelial cells can occur.

**Conclusion:** Vestibular papillae are normal anatomical variant and may be considered as the female equivalent of pearly penile papules in men. A correct diagnosis prevents unnecessary concern, laboratory tests and treatments.
**Introduction**

Many physiological variations could be seen in the external female genital organs. Vestibular papillomatosis (VP) is an anatomical variant of the vestibular mucosa that is rarely reported in the literature. Owing to its papillomatous appearance, it had been thought to be a Human Papilloma Virus (HPV) disease, for a long time [1]. Currently, it could be misdiagnosed as genital warts [2]. Dermatologists as well as gynecologists must recognize this condition to avoid unnecessary laboratory tests and treatments. We report 8 cases of VP that had been diagnosed in our department during the last decade.

**Patients and Methods**

We conducted a retrospective study of 8 cases of VP diagnosed in the department of Dermatology of Hedi Chaker University hospital of Sfax. The study period went from June 2005 to January 2016. Diagnosis was clinical. Epidemiological and clinical data as well as details of sexual activity (marital status, sexual intercourse) and gynecological and obstetric history (number of pregnancies, live births) were recorded.

**Results**

There are 8 women between the ages of 20 and 38 (average age 26). Seven of them were married. The unmarried patient denied any sexual activity. Four of them were sent for suspicion of condyloma acuminatum. Two patients were impaired by vulvar pruritus and two patients reported dyspareunia. Three patients were pregnant (term of 16, 28 and 30 weeks of amenorrhea). A patient (unmarried) consulted for the unsightly aspect. The lesions were discovered fortuitously by the gynecologist (4 cases) or by the patient herself. The examination found multiple papillomatous (Figure 1), pinky, filiform, translucent lesions of the same color as the vulvar mucosa (Figure 2 and 3), arranged symmetrically on the internal slopes of the labia minora and each having a base separated from each other’s. The typical clinical appearance of the lesions and the symmetrical character allowed us to carry the diagnosis of vestibular papillomatosis.

![Figure 1: Multiple vulvar papilloma of the inner side of the labia minora.](image)

<table>
<thead>
<tr>
<th>Age</th>
<th>Marital status/sexual intercourse</th>
<th>Circumstances of discovery</th>
<th>Clinical examination</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Multiple papillomatous, pinky, filiform translucent lesions arranged symmetrically on the internal slopes of the labia minora</td>
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<td>Pregnant (16 weeks)</td>
<td>Fortuitously</td>
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<tr>
<td>26</td>
<td>-</td>
<td>Dyspareunia</td>
<td>-</td>
</tr>
<tr>
<td>22</td>
<td>Unmarried (no sexual activity)</td>
<td>Unsightly aspect</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>married</td>
<td>Vulvar pruritus</td>
<td>-</td>
</tr>
<tr>
<td>28</td>
<td>-</td>
<td>Pregnant (28 weeks)</td>
<td>Fortuitously</td>
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<tr>
<td>30</td>
<td>-</td>
<td>Pregnant (30 weeks)</td>
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</tr>
<tr>
<td>38</td>
<td>-</td>
<td>Dyspareunia</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1: Clinical presentation of the 8 cases.

**Discussion**

Vestibular papillomatosis is an uncommon benign condition which was first recognized by Altmeyer in 1981[1]. It was first described as small lesions with smooth projections of the vulvar mucosa and named pseudocondylomata because of the similar appearance with condyloma acuminatum [2]. In 1987, Campion described three types of subclinical vulvar lesions, one of which was the vestibular papillae thought to be associated with HPV infection. A few years later, in 1991, the report by the International Society for the Study of Vulvar Diseases (ISSVD) described papillomatosis of the vulvar vestibule as the presence of multiple papill-
Vestibular papillae that may cover the mucosal surface of the labia minora. Since then they have been reported under a variety of names: Hirsutoid papilloma’s of vulva, vulvar squamos papillomatosis, micropapillomatosis labialis and squamos vestibular micropapilloma [3]. This condition is very rare so that its incidence is difficult to estimate. It has been recorded in healthy young women in the range of 1 to 33%.

The clinical resemblance and localization of VP has caused controversy about its etiology. VP has been reported with HPV but a consistent association has not been proven. Some authors suggest that vestibular papillomatosis, though not caused by HPV infection could possess a risk of further genital HPV infection, but no data from prospective trials substantiate such a view. Its diagnosis is based solely on clinical presentation. Five clinical parameters were suggested by Moyal-Barranco et al in order to facilitate the differential diagnosis of VP from genital warts. The vestibular papillae of 1 to 2 mm of diameter have the same color as the adjacent mucosa. The lesions are soft and are symmetrical or may be linear [1], may cover labial minora and the introitus vaginae to variable extent, the bases of individual vestibular papillae projections remain separate. However condyloma acuminatum is hard and irregular; its projections can coalesce in a common base and the lesions are not confined to the vestibule or the inner aspects of labia minora. In addition, application of 5% acetic acid causes whitening of the lesions in warts whereas vestibular papillae remain unchanged.

Dermatoscopy of VP reveals abundant and irregular vascular channels in the transparent core of cylindrical papillae. In the other hand, dermatoscopy of warts shows multiple irregular projections with tapering ends which are whiter and broader than vestibular papillae; haemorrhages may also be present [2]. The Histology of this condition is characterized by finger-like protrusions of a loose connective tissue covered by normal vulvar epithelium. Some vacuolated epithelial cells can occur [3].

**Conclusion**

Vestibular papillae are normal anatomical variant and may be considered as the female equivalent of pearly penile papules in men. A correct diagnosis prevents unnecessary concern, laboratory tests and treatments.

**References**