

The Vulva / Vaginal Diseases in Daily Practice

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OBJECTIVE: To emphasize the neglected vulva/vaginal lesions and symptoms commonly encountered in daily practice.

STUDY DESIGN: The data of 98 patients with vulva or vaginal biopsies were collected retrospectively. The histopathological diagnosis of 82(83.67%) vulvar and 16(16.32%) vaginal biopsy cases were evaluated.

RESULTS: The most common symptom was mass in 67% and 62% of cases in vulvar and vaginal region, respectively. Among the vulvar lesions the most frequent histopathological diagnoses were condyloma acuminatum (20.73%), hyperkeratotic papilloma (14.63%), non-specific inflammatory changes (12.19%), fibroepithelial polyp (9.75%) and bartholin cyst (8.53%). On the other hand, the histopathological evaluation of the vaginal lesions revealed vaginal stromal polyp (25%) and gartner cyst (25%) as the most frequent lesions.

CONCLUSIONS: The results of the study document lesions commonly not well known or disregarded by gynecologists. The literature is inconclusive about vulvovaginal diseases. Expanded data will help the clinicians in making correct diagnoses and patient management.

Key Words: Fibroepithelial polyp, Hyperkeratotic papilloma, Stromal polyp, Vaginal diseases, Vulvar diseases.

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Introduction

Vulva is once called forgotten pelvic organ and related symptoms are usually considered as unimportant.¹ The most common complaints in women admitting to gynecology clinics are vulvar itching, pain and dyspareunia. The common vulva/vaginal lesions are not much mentioned in the literature.

The morphology and physiology of the vulva and vagina change during life time. The most visible changes occur in puberty, at different stages of menstrual cycle, pregnancy and menopause.² At birth of a female newborn the vulva and vagina are effected by residual maternal estrogens. With puberty adrenal and gonadal maturation cause further changes in these pelvic organs. In reproductive age, steroid hormones with menstrual cycle cause vulvar skin changes at cytological level like ortho and parakeratosis. Further adaption happens in pregnancy and delivery. After menopause, tissue atrophy ensues.²

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The clinicians should be aware of these physiological changes that will help in guiding the vulvar/vaginal symptoms and disorders in daily clinical practice. There is limited data about the most common reported histopathological diagnoses and management in vulvovaginal diseases. This study is designed to emphasize the neglected vulva/vaginal lesions and symptoms commonly encountered in daily practice.

Material and Method

We have analyzed patients who have attended to Gynecology Department of an University hospital between June 2007 and April 2011. Patients suffering from the symptoms of vulvar or vaginal region and who had undergone biopsy for histopathological diagnosis were included in the study. The data of 98 patients were collected retrospectively. The records of patients clinical history, demographic data, obstetrics background, menstrual cycle ormenapausal status and the other clinical illnesses were noted. The physical examination including the inspection of the vulva and visualization of the vagina after speculum administration was recorded. In our routine, all visible lesions are biopsied and if possible the whole lesions are removed with excisional biopsy.

The records of the cases showed vulvar biopsy in 82(83.67%) and vaginal biopsy in 16 (16.32%) patients. The first attempt was to use the latest classification of vulvar disease published in 2006 by International Society for the study

of Vulvar Disease (ISSVD).³ However, classification of lesions reported in this study was not possible with this classification system of ISSVD. Therefore the vulvar and vaginal lesions were categorized according histopatological diagnosis.

Totally 43 patients' biopsy were performed in out patients clinic. The other 55 patients were hospitalized and biopsies were performed in operation room. All biopsies were performed under anesthesia. Mostly local anesthesia was used in 55 (67.07%) cases. Laringeal mask was preferred in 27 (32.92%) patients and 11(13.41%) cases underwent general anesthesia. Sedation anesthesia was used in 5 (6.09%) patients who were biopsied in operating room. The size of lesions varied from <1 cm to 5 cm.

All of the specimens had been formalin-fixed and embedded in parafin. Fivemicrometer thick sections were cut from the formalin-fixed tissue embedded in parafin blocks. The hematoxylin and eosin stained section slides were examined by pathologist (H.D.). The histopathological patterns and specific diagnosis were recorded.

Results

The mean age of the study population was 47,88±13,37 years (range 21-79 years). The mean age of cases with vaginal lesions and vulvar lesions were 47,50±12,42 (range 26-78 years) and 41,98±13,46 (range 21-79 years) years, respectively. Cases with vulvar lesions were much younger. Among all patients 57 women were in reproductive age group, 36 patients were in menopause and 5 patients were pregnant. Of the reproductive age group (n=57), 49 (85.96%) were regularly menstruating, where as 8(14.03%) has unregular cycles. Of these females, 78(79.59%) patients were married and 20 (20.40%) patients were single. The median (min-max) values for gravidity and parity were 2 (0-10) and 2 (0-7), respectively.

Among 98 cases included in the study, 85 admitted with different symptoms such as itching, soreness, pain, bleeding or a palpable mass. The remaining 13 came to our clinic for their routine gynecologic control and were asymptomatic. In vulvar region the most common symptom was visible mass in 55 (67.07%) cases. In 12 (14.45%) patients vulvar lesions were found in routine examination and biopsied. The remaining 11(13.25%) cases had itching and 4(4.81%) admitted with pain. In vaginal region the most common symptom was enlarging mass in 10 (62.5%) cases. Itching was observed in 3 (18.75%) cases, 2 (12.5%) admitted with bleeding and one patient was asymptomatic.

The histopatological categorization of the vulvar and vaginal lesions are given in Table 1 and 2, respectively. We classified vulvar lesions as benign epithelial lesions (46.34%, 38/82), benign melanocytic lesions (4.87%, 4/82), benign mesenchymal lesions (4.87%, 4/82), glandular neoplastic le-

sions (2.43%, 2/82), non-specific inflammatory changes (12.19, 10/82), infections (24.39%, 20/82) and premalignant and malignant lesions (4.87%, 4/82). We classified vaginal lesions as benign epithelial lesions (68.75%, 11/16), granulomatous inflammatory lesions (18.75%, 3/16), premalignant lesions (6.25%, 1/16) and tumor metastasis (6.25%, 1/16).

Table 1: Histopathological findings of vulvar biopsies of 82 cases vulvar Lesions n(%)

Vulvar Lesions	n(%)
Benign Epithelial Lesions	
-Fibroepithelial polyp	8(9.75)
-Squamous papilloma	5(6.09)
-Hyperkeratotic papilloma	12(14.63)
-Epidermal cyst	2(2.43)
-Bartholin cyst	7(8.53)
-Lichen sclerosus	1(1.21)
-Squamous cell hyperplasia without atypia	3(3.65)
Benign Melanocytic Lesions	
-Intradermal nevus	4(4.87)
Benign Mesenchymal Lesions	
-Lipom	2(2.43)
-Leiomyoma	2(2.43)
Glandular Neoplastic Lesions	
-Papillary hidradenoma	2(2.43)
Non-specific Inflammatory Changes	
Infections	
Bacterial	
-Bartholin abscess	2(2.43)
Viral	
-Condyloma acuminatum	17(20.73)
-Molluscum contagiosum	1(1.21)
Premalignant and Malignant Lesions	
-Vulvar Intraepithelial Neoplasia (VIN)	2(2.43)
-Pigmented Basal Cell Carcinoma (BCC)	1(1.21)
-In situ melanoma	1(1.21)

Table 2: Histopathological findings of vaginal biopsies of 16 cases

Vaginal lesion	n (%)
Benign Epithelial Lesion	
-Vaginal stromal polyp	4(25)
-Epithelial cyst	2(12.5)
-Gardner cyst	4(25)
-Müllerian cyst	1(6.25)
Granulomatous Inflammatory Lesion	
Premalignant Lesion	
-Vaginal Intraepithelial Neoplasia II	1(6.25)
Tumor Metastasis	
-Adenocarcinoma	1(6.25)

Among the vulvar lesion the most frequent histopathological diagnosis were condyloma acuminatum (20.73%), hyperkeratotic papilloma (14.63%), non-specific inflammatory changes (12.19%), fibroepithelial polyp (9.75%) and bartholin cyst (8.53%). On the other hand, the histopathological evaluation of the vaginal lesions revealed vaginal stromal polyp (25%) and gardner cyst (25%) as the most frequent lesions.

Among the 29 patient in menopause who underwent vulvar biopsy, benign epithelial and premalignant/malignant lesions were the most commonly diagnosed. The histopathological diagnosis of 16 cases with benign epithelial lesions in menopause showed fibroepithelial polyp in 5 cases, hyperkeratotic papilloma in 3 cases, bartholin cyst in 3 cases, squamous papilloma in 2 cases, 2 squamous cell hyperplasia without atypia and in one case epidermal cyst observed. The other lesions in this age group were as follows: 4 non-specific inflammation, 3 condyloma acuminatum, 2 intradermal nevus, one papillary hidradenoma, one lipom, one vulvar intraepithelial neoplasia (VIN) and one basal cell carcinoma (BCC).

In reproductive age group (n=48), the benign epithelial lesions and infections were common. In these women 18 patients had benign epithelial lesions: 7 hyperkeratotic papillom, 4 bartholin cyst, 3 squamous papillom, one fibroepithelial polyp, one epidermal cyst, one squamous cell hyperplasia without atypia and one lichen sclerosus. In 17 women the biopsy revealed infections such as condyloma acuminatum in 14 cases, bartholin abscess in 2 cases and molluscum contagiosum in one case. Non-specific inflammation was observed in 6 cases. In 2 cases leiomyom and in one case lipoma were seen. Papillary hidradenoma, intradermal nevus, VIN and in situ melanoma were diagnosed in four cases. In pregnant patients (n=5) had vulvar biopsy indicated fibroepithelial polyp in 2 cases, hyperkeratotic papilloma in 2 cases and intradermal nevus in one case.

The results of the vaginal biopsy group of reproductive age showed cysts of vagen such as: 4 gardner cyst, one epithelial cyst, one müllerian cyst. In 2 cases vaginal stromal polyp was established. In one case vaginal intraepithelial neoplasia was determined. Among menopausal women vaginal biopsy revealed granulomatous inflammatory lesions in 3 cases, vaginal stromal polyp in 2 cases, epithelial cyst in one and tumor metastasis in another case.

Discussion

This study is designed to clarify the histopathological diagnosis of the cases admitting with vulva/vaginal lesions and symptoms in daily practice. The results of the histopathological evaluation of the biopsy specimens were far more different than expected. Commonly observed vulva/vaginal lesions are neglected by gynecologists. Although the anatomy and the

curly structure of vulva and vagen make the diagnosis hard, many gynecologists disregard these lesions. Not only gynecologists but also dermatologists, pathologists, neurologists and psychologists are interested in these lesions. Even though, vulvar diseases are not a subspecialty of any particular specialty, gynecologists are usually the clinicians first consulted by women with vulvar symptoms.⁴ As the patients attend to different specializations for these lesions, the results of epidemiological studies varies. Therefore, the incidence of vulvar disease is not known very well. In addition, the wide spectrum of diseases in the vulva/vaginal region complicates the results.

International Society for the Study of Vulvovaginal Disease (ISSVD) have been constituting work in this field over a forty years. The main problem is the classification of the lesions. Variety of lesions in vulva/vaginal region unables an optimum classification system. Many different classification systems have been suggested up today and many changes have been made since. Initially in 1987 vulvar diseases were categorized mainly in three groups consisting of lichen sclerosus, squamous cell hyperplasia not otherwise specified and other dermatoses.⁵ Ever since improvements in the classification systems continued and the latest classification has been made in 2006 by ISSVD. This classification is based on the nomenclature of histological morphology rather than a clinical morphology of the nonneoplastic and noninfectious vulvar diseases.³ In this study, we first tried to use this latest classification system but there was only one patient eligible for this system diagnosed as having lichen sclerosus. The other patients could not be classified according to this system as the histopathological diagnosis of our cases were missing in the classification system of ISSVD. Unfortunately, due to lack of a proper classification system for the patients in this study we categorized the patients according to histopathological results of the lesions. In both vulva and vagen, the most frequent lesions observed were benign epithelial lesions. When analyzed separately, hyperkeratotic papillom, fibroepithelial polyp and bartholin cyst were common lesions of the vulva. In vagen, vaginal stromal polyp and gardner cyst were the frequent ones.

Human papilloma virus (HPV) is the most common venereal disease and causes recurrent lesions of condyloma acuminatum. These generally multifocal benign lesions have a distinct verrucous gross appearance. Once diagnosed the patient might necessitate frequent gynecology visits that will cause economic and physiological burden. The vulvar HPV lesions are caused by low oncogenic types such as 6 and 11 and may involve perineal and perianal regions. HPV related biopsy findings were established in 20% of the cases. The importance and necessity to emphasize the vulvar lesions is because of the high prevalence of vulvar infections in young population. Although condyloma acuminata is not considered as precancerous lesion,⁶ coincidental infection of the patient with a high

oncogenic HPV type and possible presence of cervical and vaginal lesions in these cases is a requisite for further evaluation and follow up.

The histopathology of vulvar biopsy reported as fibroepithelial polyp might not be meaningful for the gynecologists who are unfamiliar with skin lesions. Although fibroepithelial polyps are usually considered inconsequential, they can occasionally be associated with diabetes, obesity and intestinal polyposis. Therefore, such a result should alert the gynecologist for the associated morbidities. Moreover, fibroepithelial polyps often become more numerous or prominent during pregnancy.⁷ Supporting this two of the five pregnant patients admitted to us with numerous fibroepithelial polyps.

The premalignant and malignant lesions of the vulva are rare but important. In this study a case of BCC was diagnosed which is seldomly seen in genital area. As far as we know 300 cases of vulvar BCC have been published in the literature.⁸ Our case was a 51 yearsold women in menopause without complaints or any chronic disease. In her examination a slightly infiltrated plaque with a partially hyperpigmented border was seen in vulva. Local excision was performed. The pathology findings confirmed pigmented BCC with negative surgical border. Even if the pathogenesis of vulvar BCC is unknown, the related risk factors are X-ray treatment,^{9,10} chronic irritation, local travma,¹¹ exposure of arsenic,¹² HPV types¹³ and basal cell nevus syndrome.¹⁴ The rarity of BCC developing in vulvar region might be explained by the fact that the genital region is sun-protected.⁸ Although these tumors grow very slowly, early diagnosis and surgical treatment with negative margins is very important to spare patients unfavorable results.

A premalignant vulvar lesion was diagnosed in 61 year of menapausal women suffering from an itching plaque on vulva. Her histopathological result revealed VIN 2-3. Itching is not always an ordinary complaint, especially in menopause. VIN in older women is usually unifocal and HPV-unrelated.¹⁵ The third case with a vulvar malignant lesion were much younger (45 years old). Her major complaint was growing polyp like pigmented lesion and the excisional biopsy with local anesthesia showed in situ melanoma. Such lesions can grossly be mistaken for banal genital warts or melanocytic nevi. This patient reminds us the importance of a careful inspection of the vulva. Moreover, gynecologists would rather be much more sensitive about patients' complaints. Any pigmented lesion with possible growth should be excised to exclude melanoma.

Like the premalignant and malignant cases of the vulva, vaginal premalignant and malignant lesions were also observed in advanced age women. The first case was diagnosed as having vaginal intraepithelial neoplasia. She was 50 years old women complaining of a palpable small mass in the vagina. An uncommon result from the vaginal biopsy was ob-

served in another case who was 52 years. This patient had admitted with vaginal bleeding after total abdominal hysterectomy and bilateral ooforectomy for endometriosis performed a month ago. In speculum examination a mass protruding from the vaginal cuff was seen. The lesion was documented as adenocarcinoma. The patient was consulted with a medical oncologist. The specimen of the hysterectomy was evaluated by the pathologist once more and gynecologic malignancy was eliminated. No other tumoral mass was identified in radiological examinations and the patient underwent chemotherapy in another clinic. One year follow-up of the case is uneventful. Advanced age of the women increases the possibility of the diagnosis of premalignant/malignant lesions in vulva/vaginal area. Every symptom and lesion would be carefully inspected and biopsied to exclude malignancies.

This study will add to the present information about vulva/vaginal diseases. The results of the study document lesions commonly not well known or disregarded by gynecologists. Vulva/vaginal lesions are usually undervalued and the literature is inconclusive on this issue. Reports of cases will improve the understanding of vulvar/vaginal diseases. Expanded data will help the clinicians in making correct diagnoses. Moreover, every effort will raise patients' quality of life and long term consequences.

Vulva ve Vajen Hastalıklarının Günlük Pratiğimizdeki Yeri

AMAÇ: Günlük pratiğimizde çoğu zaman karşılaşılan ve sıklıkla ihmal edilen vulvar/vajinal lezyonları ve bunların semptomlarını vurgulamak.

GEREÇ VE YÖNTEM: Vulvar ve vajinal biyopsi uygulanan 98 hastanın bilgileri retrospektif olarak toplandı. Vulvar biyopsi 82 (%83,67) ve vajinal biyopsi 16(%16,32) hastaya uygulandı. Vulvar ve vajinal biyopsi sonuçları değerlendirildi.

BULGULAR: En sık karşılaşılan semptom sırası ile %67 ve %62 ile vulva ve vajen bölgesinde ele gelen kitle idi. Vulvar bölgede en sık karşılaşılan histopatolojik tanı (%20,73) condiloma acuminatum, (%14,63) hiperkeratotik papillom, (%12,19) non-spesific inflammatuar değişiklikler, (%9,75) fibroepitelial polip and (%8,53) bartholin kisti idi. Diğer taraftan, vajinal lezyonlarda en sık karşılaşılanlar biyopsi sonuçları (%25) vajinal stromal polip ve (%25) gardner kisti idi.

SONUÇ: Bu çalışmanın sonuçları göstermiştir ki vulvar ve vajinal lezyonlar jinekologlar tarafından yeterince bilinmemekte ve ihmal edilmektedir. Literatür vulvovajinal hastalıklar için yetersizdir. İlerleyen çalışmalar klinisyenlere doğru tanı koyma ve hasta yönetiminde yardımcı olacaktır.

Anahtar Kelimeler: Fibroepitelial polip, Hiperkeratotik papillom, Stromal polip, Vajinal hastalıklar, Vulvar hastalıklar.

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