Journal of Case Reports and Medical History

(ISSN: 2831-7416) *Open Access*

Case Report Volume 4 – Issue 11

Bowen's Disease of Vulva: A Case Report

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Received date: 16 July, 2024 | **Accepted date:** 26 July, 2024 | **Published date:** 17 Dec, 2024

Citation: Younes B, Hajar E, Imane Z, Chehrazad E, Oumnia E, et al. (2024) Bowen's Disease of Vulva: A Case Report. J Case Rep Med Hist 4(11): doi https://doi.org/10.54289/JCRMH2400158

Abstract

Bowen's disease is an intraepidermal carcinoma that can progress to invasive carcinoma and can affect several organs, including the vulva. This clinical case presents a 45-year-old patient with vulvar BOWEN'S disease, with hyperpigmented, dyschromic vulvar and anal exophytic lesions on the clinical examination. The Skin and vulvar biopsy showed a squamous cell carcinoma in situ with no invasive sites. Cytological sampling of ASC-H cervix, showed at colposcopy: endocervical TAG2A, ZT3. The nail biopsy showed a squamous cell carcinoma in situ (Bowen's disease) with no signs of invasion. The patient was operated for a conization, and the histological examination revealed a squamous cell carcinoma in situ with microinvasive focus 3mm wide and 2mm deep with upper tumour border. Therefore, a total vulvectomy with hysterectomy without adnexal preservation was performed.

The aim of the current treatment is to have a conservative approach, and to preserve the anatomical and functional integrity of the vulva as far as possible.

Keywords: Bowen's Disease, Carcinoma, Vulva, Tumour

Abbreviations: BD: Bowen's Disease, HIV: Human Immunodeficiency Virus, FU: Fluorouracil

Introduction

Bowen's disease (BD) and Bowenoid papulosis (BP) are premalignant skin lesions, mostly appearing on sun-exposed areas. Lesions on the vulvar regions are relatively rare and there is still confusion about the various terms used to describe these similar disorders **[1,2]**.

The relationship of Bowen's disease to internal malignancy may still be indirect (via heredity, arsenic exposure, HPV, or other unidentified carcinogen), and further studies with long-term follow-up are necessary. The disease itself is easily treated and has an excellent prognosis **[3]**.

Case report

45-year-old female patient, one child born naturally, followed for type 2 diabetes on insulin, with undocumented history of recurrent genital infection. Referred from the dermatology department of the university hospital for vulvar and anal lesions that had been evolving for 10 years and had never been treated. Clinical examination revealed a patient in

good general condition, with normal-colored conjunctivae, and a BMI of 27kg/m2. Examination of the genital tract revealed hyperpigmented, dyschromic vulvar and anal exophytic lesions **(figures 1 and 2)**. The speculum examination showed the presence of a cervical lesion. The uterus size was normal, with no latero-uterine mass or palpable lymph node. Breast examination was normal. Her nails were scaly with a hard edge **(figure 3)**. A skin and vulvar biopsy in the most suspicious sites **(figure 4)** showed histological evidence of squamous cell carcinoma in situ with no invasive sites **(figures 5 and 6)**. Cytological sampling of the ASC-H cervix, showing at colposcopy: endocervical TAG2A, ZT3 **(figures 7 and 8)**. Biopsy of the suspicious area of the cervix during colposcopy, showing squamous cell carcinoma in situ **(figure 9)**. Nail biopsy: squamous cell carcinoma in situ (Bowen's disease) with no signs of invasion. Proctological examination: vulvo-anal lesion associated with Bowen's disease. Syphilis serology (TPHA), Serology (Elisa Ag-AC HIV), Hepatitis B serology (Elisa Ag-HBs), Hepatitis C serology (Elisa Ag-Ac-HCV) and HIV are negative. The patient was operated on for a conization within the histological final examination: squamous cell carcinoma in situ with microinvasive focus 3mm wide and 2mm deep with upper tumoral limit. A Total vulvectomy with hysterectomy without adnexal preservation was performed **(figures 10 and 11)** and post operating images **(figures 12 and 13)**. The final histological results revealed:

1. Vulvectomy: Squamous cell carcinoma in situ with suspected invasive foci and associated low-grade VIN lesions, an immunohistochemical study is underway to evaluate the suspected invasive foci.
2. Hysterectomy: Squamous cell carcinoma in situ with foci of invasion. Recuts are underway to determine depth of invasion, posterior vaginal collar, isthmus and uterine wall uninvolved.

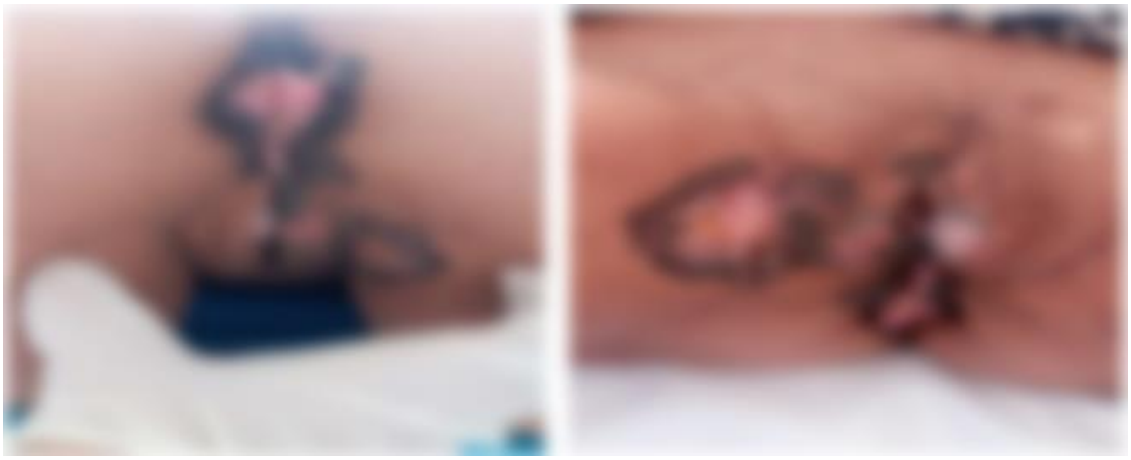

Figure 1 and 2: hyperpigmented, dyschromic vulvar and anal exophytic lesions

Figure 3: Ungeal bowen disease

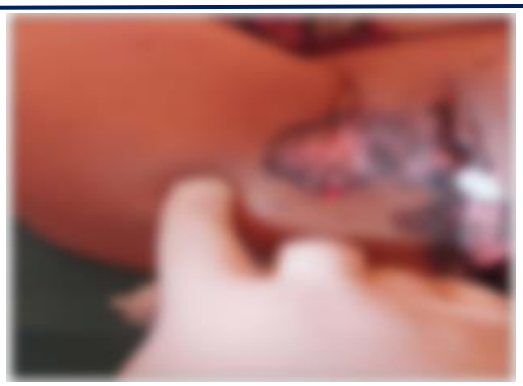

Figure 4: Vulvar and skin biopsy

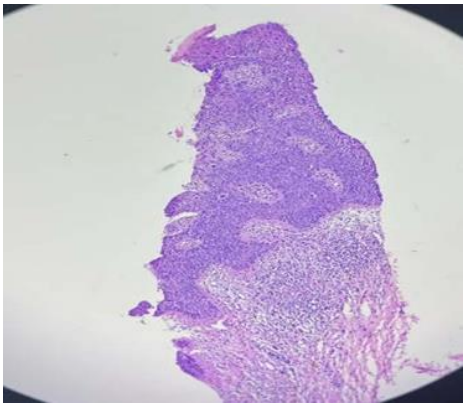

Figure 5: Vulva biopsy with intact MB and Presence of koilocytes with brown spots

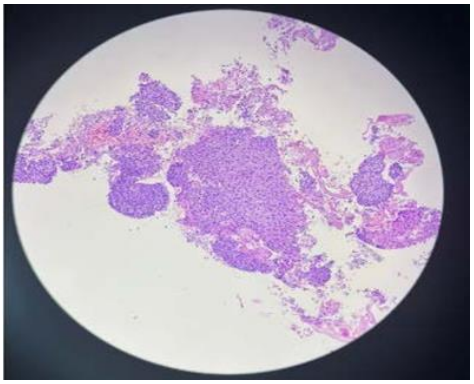

Figure 6: Cyto-nuclear atypia and koilocytes

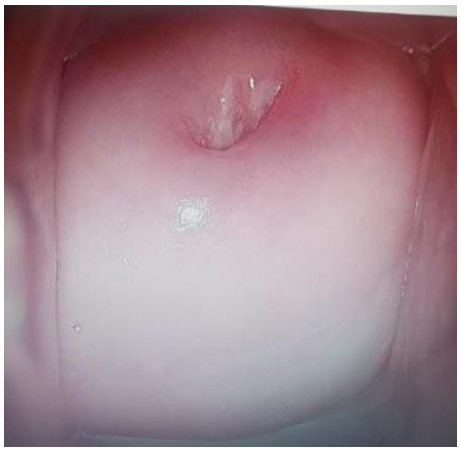

Figure 7: Acidophilic zone with irregular contours

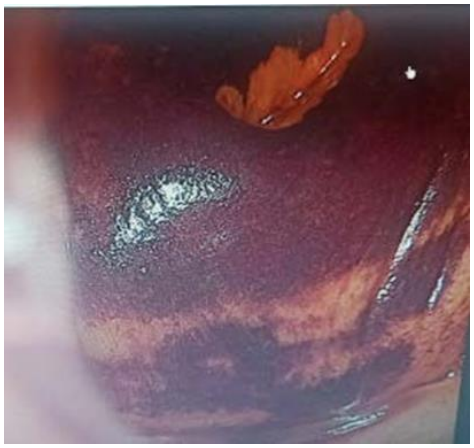

Figure 8: Lugol examination with colpitis

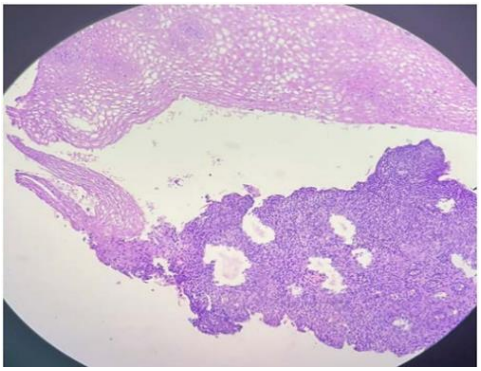

Figure 9: Biopsy of the cervix during colposcopy showing squamous cell carcinoma in situ

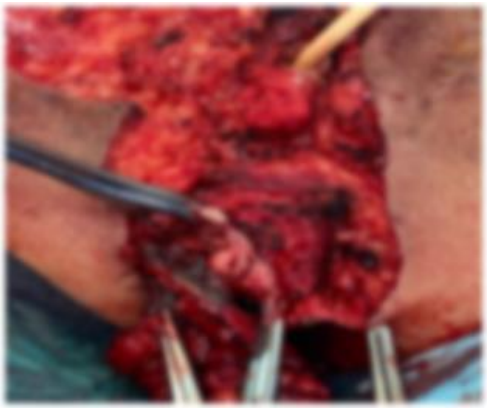

Figure 10: Per operative image of the vulvar surgery

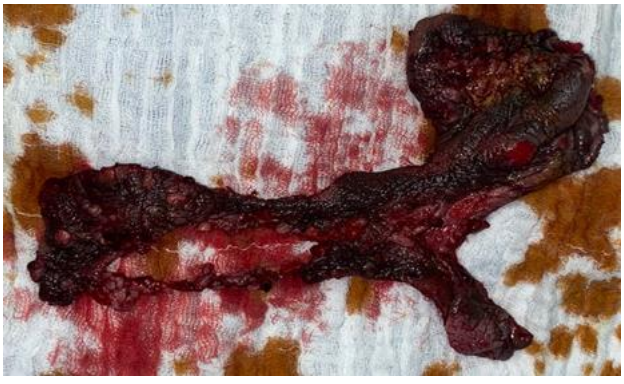

Figure 11: surgical vulvectomy segment

Figure 12: Immediat post-operating image of the vulvectomy

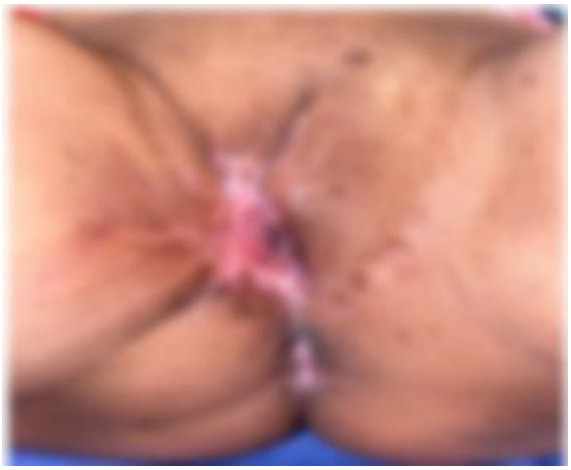

Figure 13: Evolutive post operating image

Discussion

Bowen's disease is an intraepidermal squamous cell carcinoma (carcinoma in situ) as originally described by John T. Bowen , this disease has the potential to progress to an invasive carcinoma and may affect both the skin and the mucous membrane of the glans penis, vulva, and oral mucosa **[3]**.

Bowen's disease may occur at any age, but patients older than 60 years are typical, and it can occur anywhere in the body, It usually affects sexually active adults, is more common in women, and is more common in people infected with the human immunodeficiency virus (HIV **[4]**.

The lesion is more often solitary than multiple and may develop on exposed or non-exposed skin. The time interval from observed onset to diagnosis is approximately six years in the patient with a typical lesion **[5]**.

The most prevalent symptoms were itching and pain. The striking feature of many cases, especially those involving the vulva, is pruritus. The lesions may be confused with a variety of dermatologic lesions such as syphilis, tuberculosis, eczema, Paget's disease and psoriasis **[4]**.

The following characteristics should arouse suspicion of Bowen's disease: discrete or confluent, flat or slightly elevated, crusted papulo-squamous patches with circinate or serpiginous margins. Surrounding induration of the skin is minimal **[5]**.

The vulvar lesions in the early stages may suggest leucoplakia or kraurosis **[6]** Diagnosis can only be made after multiple biopsies under local anesthesia with Kevorkian biopsy forceps. Invasion is not diagnosed in 7- 22% of cases. Cervicovaginal exploration is essential in the context of this pathology, due to an associated increase in dysplasia.

A variety of different modalities can be used to treat Bowen's disease, which can be categorized as: surgical and destructive therapies, topical therapies, and non-surgical ablative therapies. Excision, cryotherapy, and curettage with or without cautery fall under the category of surgical and the destructive therapy.

Topical therapies involve the use of 5-fluorouracil (5-FU) or

5% imiquimod. Radiotherapy, laser ablation therapy, and PDT constitute non-surgical ablative therapies. The treatment decision making should taken into account multiple factors including the location, the size, and the number of the lesion, the clinician's expertise, the patient's age and the immune status, cosmetic outcome, and the patient's preference **[7]**.

Conclusion

Bowen's disease is most common in women over the age of 60. It occurs in the form of single or up to double plaques of the leukoplakia or erythroplastic type and most commonly affects the vulva, especially the labia; Itching is the most common symptom. The goal of current treatment is to refrain from complete vulcanization in favor of more conservative treatment and preserve the anatomical and functional integrity of the vulva as much as possible. Recurrences are usually intraepithelial. It may appear with a delay, so long-term monitoring is required.

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