

# Vulvar Cancer in Elderly Women: About a Tunisian Monocentric Experience

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**Abstract:** Nowadays, elderly health is requiring a great deal of interest. Demographic projections forecast a growing number of people over the age of 65. Therefore, this population requires increasing care and healthcare services. In our series, vulvar cancer observed in menopausal women was locally advanced in one case. Most of our patients consulted after having tried various inappropriate treatments. All cases presented epidermoid vulvar cancer. This histological type requests radical vulvectomy, which is the treatment of choice. Those who benefited from an appropriate surgical treatment had a five-year survival of 71.4%. It has reached only 11% among women who had not received the proper treatment.

**Keywords:** elderly women, vulvar cancer, squamous cell carcinoma

## 1. Introduction

Cancer of the vulva is a rare neoplasia, it presents 3 to 5% of gynecological cancers. It is the fourth cancer after uterus, ovaries and cervix cancers. In the majority of cases, it affects a menopausal woman of more than 60 years, occurring on an estrogen deficient mucosa. Despite the progress of therapeutic modalities, vulvar cancer's prognosis remains dark, this is linked in part to the absence of recognized prophylactic strategies and therefore, the diagnosis is often made late [1].

The aim of the study was to identify the epidemiologic and clinico-pathologic characteristics of vulvar cancer in our department.

## 2. Methods

We performed a retrospective study including all cases of vulvar cancer in women aged not less than 65 years, diagnosed in our department of gynecology at El Omrane University Hospital of Monastir, during the last 5 years; from January 2012 to December 2016.

Data were extracted from the medical files and included socio-demographics setting, clinical presentation, histology subtype and size of the tumor at diagnosis, treatment and its results.

## 3. Results

We collected 9 patients with histologically confirmed vulvar carcinoma (Table 1). The mean age at diagnosis was 77.71 years (ranging from 69 to 82 years). At the time of diagnosis, all the patients were postmenopausal women. Mean parity was 7.57 (range from 4 to 9 deliveries). Vulvar pruritus and auto-perception of a vulvar tumor were the most

common symptoms of vulvar cancer. The mean time between the onset of local symptoms and the first consultation was 9 months (ranging from 4 to 24 months). The mean size of the tumor was 4 cm (ranging from 3 to 6 cm). The right part of the vulva was the most common localization of the tumor (6 patients). Biopsy was practiced in all cases and in all of them histological result revealed a squamous cell carcinoma.

All patients had a preoperative pelvic MRI. Six of our patients had a surgical management which consisted into wide vulvectomy with excision of superficial and deep inguinal lymph nodes, femoral and internal iliac lymph nodes. Two patients had post-operative radiotherapy. One of our patients had a locally advanced carcinoma and was treated by exclusive radiotherapy.

Two of our patients have died respectively at 9 and 5 months after radiotherapy. One patient is still alive in a complete remission after 2 years, and six others are in complete remission after one year from the date of their diagnosis without any relapses.

- 1) First patient was 82 years old, gestation (G), parity (P) abortion (A) were G9P8A1, hypertensive. She consulted five months after discovering a 3 cm vulvar nodule. Biopsy of the vulva concluded to a well differentiated epidermoid carcinoma infiltrating the vulva. Pelvic MRI showed a tissue lesion of the Great left lip without regional lymph nodes' extension. A vulvectomy was performed. She was in complete remission for a year after her diagnosis.
- 2) Second patient was 77 years old, G10P8A2, she consulted eight months after discovering a 35 mm vulvar nodule. Biopsy of the vulva concluded to a well differentiated epidermoid carcinoma of the vulva. Pelvic MRI showed a tissue lesion of the Great right lip without regional lymph nodes' extension. A vulvectomy was

performed. She was in complete remission for one year after her diagnosis.

- 3) Third patient was 78 years old, G5P5A0, she consulted 24 months after discovering vulvar nodule. Biopsy of the vulva concluded to an undifferentiated epidermoid carcinoma of the vulva. Pelvic MRI showed a tissue lesion of the Great right lip of 60mm in its grand axis with regional lymph nodes' extension. Exclusive Radiotherapy was performed and she died 5 months later.
- 4) Fourth patient was 80 years old, G9P6A3, she consulted nine months after discovering a 55 mm vulvar nodule. Biopsy of the vulva concluded to a well differentiated epidermoid carcinoma of the vulva. Pelvic MRI showed a tissue lesion of the Great right lip with regional lymph nodes' extension. A vulvectomy associated with Radiotherapy was performed and patient died nine month after radiotherapy.
- 5) Fifth patient was 81 years old, G8P8A0, she consulted seven months after discovering infected vulvar nodule. Biopsy of the vulva concluded to a well differentiated epidermoid carcinoma of the vulva. Pelvic MRI showed a tissue lesion of the Great left lip of 30 mm in its grand axis without regional lymph nodes' extension. Avulvectomy was performed. She was in complete remission for one year after her diagnosis.
- 6) Sixth patient was 79 years old, G4P4A0, she consulted 12 months after discovering a 40 mm vulvar nodule. Biopsy of the vulva concluded an undifferentiated epidermoid carcinoma of the vulva. Pelvic MRI showed a tissue lesion of the Great right lip without regional lymph nodes' extension. Avulvectomy was performed. She was in a complete remission for one year after her diagnosis.
- 7) Seventh patient was 69 years old, G12P10A2, she consulted six months after discovering a 30 mm vulvar nodule. Pelvic MRI showed a tissue lesion of the Great right lip without regional lymph nodes' extension. A vulvectomy was performed. She was in complete remission for one year after her diagnosis. Final Anapath (figure 1) concluded to a 3 cm well differentiated infiltrating epidermoid carcinoma without lymph nodes metastasis. She was still alive in complete remission for additional 2 years.
- 8) Eighth patient was 76 years old, O negative blood type, diabetic, and hypertensive. Two months earlier she discovered the appearance of a vulvar nodule which has rapidly increased in size. Biopsy of the vulva concluded to a well differentiated epidermoid carcinoma infiltrating the vulva. Pelvic MRI (figure n° 2) showed a tissue lesion of the Great left lip of 35 mm in its grand axis without regional lymph nodes' extension. A vulvectomy was performed. Final pathological examination concluded to a 4 cm well differentiated infiltrating epidermoid carcinoma, surgical limits were healthy, and there were no lymph nodes metastasis. She was in a complete remission for one year after her diagnosis.
- 9) Ninth patient was 74 years old, G9P9A0, menaused for 10 years, who consulted for a 4.5 cm mass at her vulva. A biopsy has concluded to a moderately differentiated epidermoid carcinoma of the large vulvar lip. Pelvic MRI (figure n°3) has showed a tissue mass limited to the large lip with bilateral inguinal secondary lymphadenopathy with signs of capsular break. A

vulvectomy was performed. It was a well differentiated infiltrating epidermoid carcinoma measuring 4.5 cm of the great right lip, surgical limits were healthy with one metastatic lymph node (figure 4). She was in a complete remission for one year after her diagnosis (figure 5).

#### 4. Discussion

The epidemiologic aspect of vulvar cancer in our study matches with the recent published data. It concerned post-menopausal women with a median age of 65.4–70 years[1–3].The most common symptoms of vulvar cancer described in our sample were pruritus and auto-perception of a vulvar tumor which matches with literature[2].

The mean time between the onset of local symptoms and the first consultation was 7 months which matches with other published Tunisian data [2], probably because some Tunisian women are not well informed about this disease. This late consultation explained the consequences of advanced tumor stage at diagnosis with a mean tumor size of 3.4 cm.

Squamous cell carcinoma of the vulva is the most common histological type of vulvar cancer. It represents 86.7% [1,4] or even 90% [2] of vulvar cancers.

Cain Kand Al [3] have found that the rate of well differentiated squamous cell carcinoma is lowest among aged compared to young women.

There are two forms of epidermoid carcinoma of the vulva: the first form is related to HPV infection usually affecting young women and the second form is the basaloid form which is seen among elderly women and which is associated with lichen and epithelial hyperplasia [3]. In our series, the squamous cell carcinoma was found in all the patients.

Individualized approach remains one of the most important developments in the treatment of vulvar cancers. A same standardized treatment for all patients is no longer acceptable. The early detection of malignant vulvar lesions makes the individualized treatment possible. Indeed, for stage I cancers, a minimalist treatment does not compromise the survival. Micro-invasive lesions (invasion <1 mm, stage IA), require a wide excision without lymphadenectomy[5,6]. As for the unilateral lesions less than 2 cm in diameter, an ipsilateral lymphadenectomy is recommended, although less than one ipsilateral lymph node involvement is discovered during the intervention. The practice of two separate incisions on each side for the lymphadenectomy allows a better healing and gives less infections[2].

For cancers with local extension which are retaining defecation and urination functions, another important development exists, consisting in the preoperative radiotherapy that reduces the indication of a primary exenteration. This preoperative radiotherapy is especially interesting in the case of large fixed nodules without being associated with significant delays for surgical healing or with any fistulas formation [7].

Finally, the sentinel node technique promises to be superior to the radical lymphadenectomy, and its evaluation is in pending.

## 5. Conclusion

Cancer of the vulva is a rare neoplastic disease, affecting elderly women in their sixth or seventh decade. Most of the patients are multiparous and post-menopausal women. Its prognosis is dark due to the advanced stage in which the patients are diagnosed. The treatment is still first of all based on surgery.

### What is already known on this topic

- Median age of 65.4–70 years.
- Squamous cell carcinoma of the vulva is the most common histological type.

### What this study adds

Identifying the epidemiologic and clinico-pathologic characteristics of vulvar cancer in our department.

### Competing interests

The authors declare no competing interest.

### Authors' contributions

Olfa.zoukar, Inezouari, Ons HammamiRym.bourigua: Writing abstracts, introduction, conclusion and the discussion. Amira daldoul, Ines mazhoud, Aminaben salem, Manelnejima, Raja faleh: Writing the part of systemic treatment, radiological examinations and part of the discussion.

### Tables and figures

Table1: Table summarizing the cases

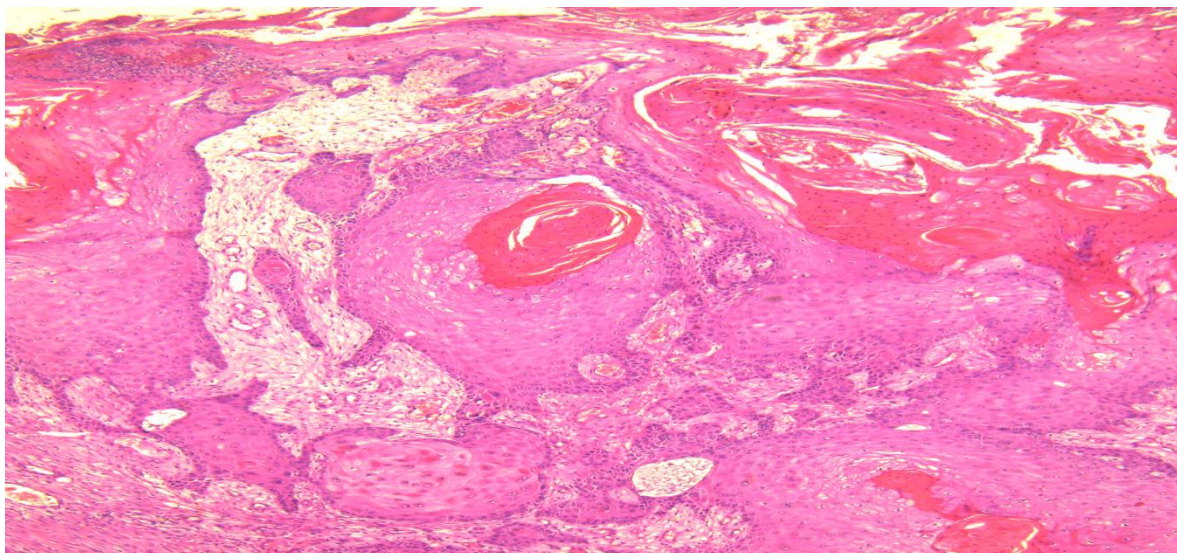
Figure 1: Infiltrating carcinomatous proliferation with distinct squamous differentiation (HEX40)

Figure 2: Pelvic magnetic resonance imaging: a tissue lesion of the Great left lip of 35 mm in its grand axis without regional lymph nodes' extension.

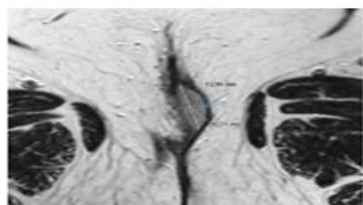
Figure 3: Pelvic magnetic resonance imaging: a tissue mass limited to the large lip with bilateral inguinal secondary lymphadenopathy with signs of capsular break.

Figure 4: Lymph node metastasis (HEX40)

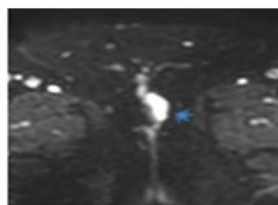
Figure 5: Complete remission for one year after her diagnosis



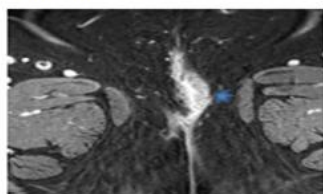
**Figure 1:** Infiltrating carcinomatous proliferation with distinct squamous differentiation (HEX40)



Axial T2-weighted MR image shows 5 cm left vulvar mass with intermediate signal intensity

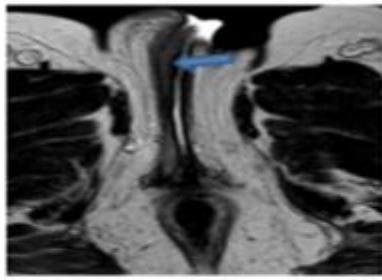


Diffusion-weighted image shows high signal intensity of vulvar mass, and lower ADC value of mass (compared with adjacent muscle, likely representing high cellularity of mass).

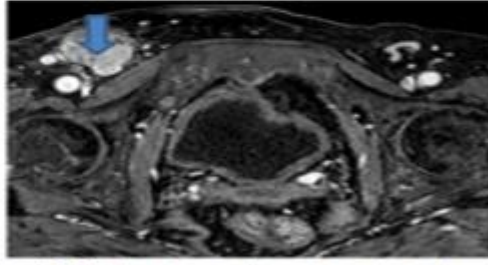
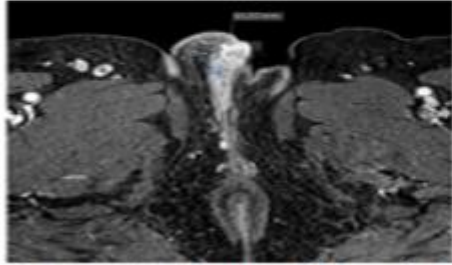


Contrast-enhanced T1-weighted MR images show contrast enhancement of vulvar mass and no lymph node metastasis

**Figure 2:** Pelvic magnetic resonance imaging: a tissue lesion of the Great left lip of 35 mm in its grand axis without regionally lymph nodes' extension.

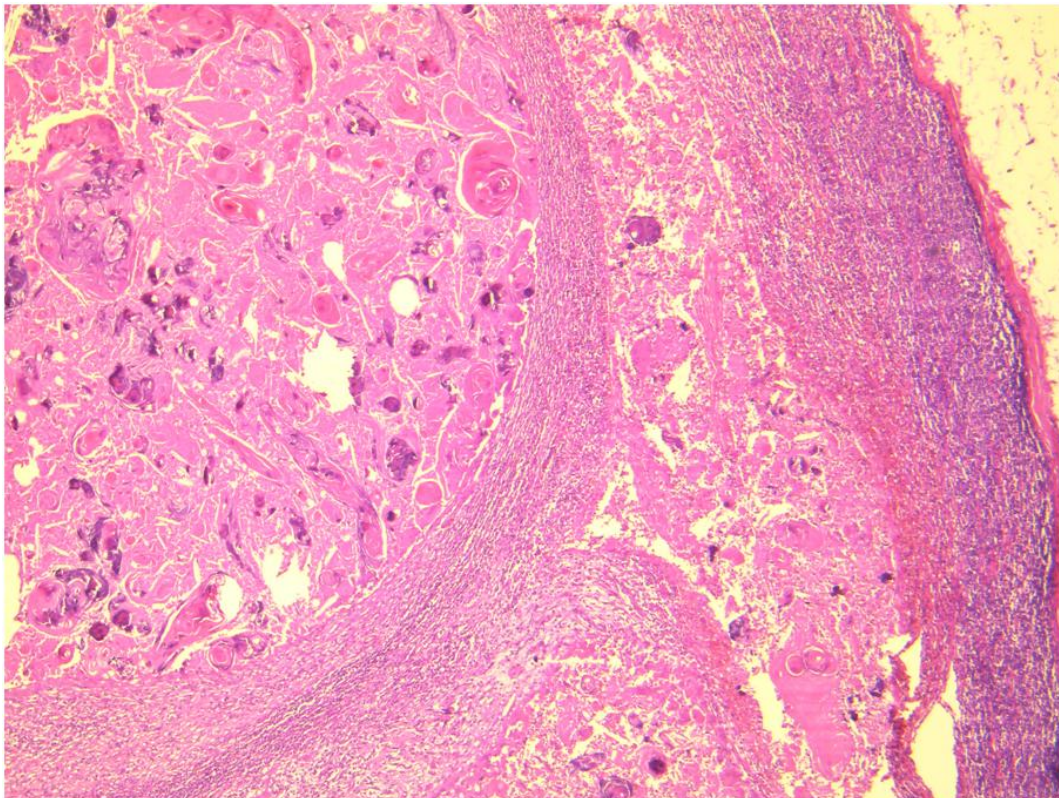


axial T2 weighted MR image shows intermediate signal intensity mass in right vulva .



Contrast-enhanced T1-weighted MR images show contrast enhancement of vulvar mass with right inguinal lymph node metastasis

**Figure 3** Pelvic magnetic resonance imaging: a tissue mass limited to the large lip with bilateral inguinal secondary lymphadenopathy with signs of capsular break.



**Figure 4:** Lymph node metastasis (HEEx40)

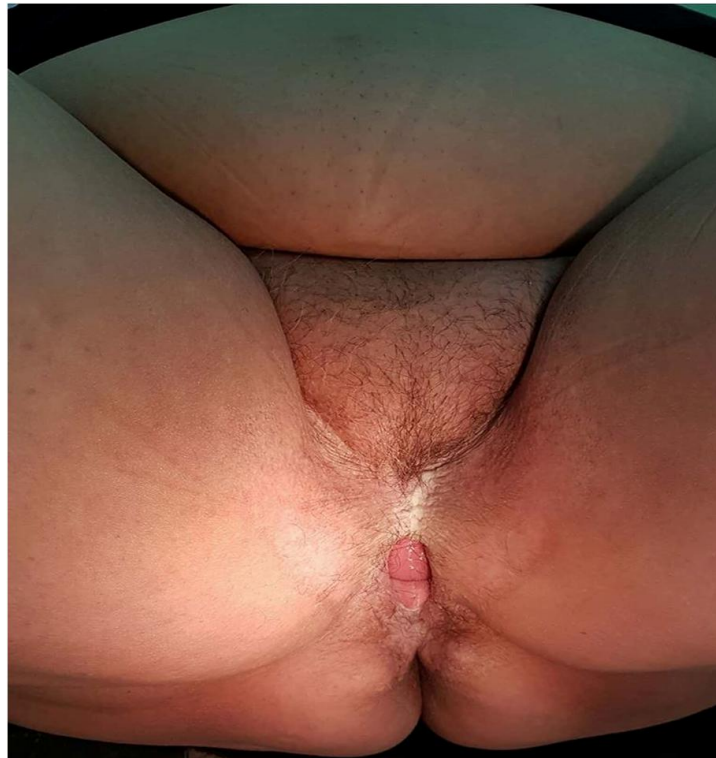


Figure 5: Complete remission for one year after her diagnosis

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Table 1

	Age (years)	Parity	First consultation (months)	Tumor size (cm)	Tumor Localization	Metastatic lymph node or not	Therapeutic	Therapeutic Continuation
First patient	82	G7P6A1	5	3	left lip	without metastatic lymph node	vulvectomy	complete remission
Second patient	77	G10P8A2	8	3.5	right lip	without metastatic lymph node	vulvectomy	complete remission
Third patient	78	G5P5A0	24	6	right lip	with metastatic lymph node	Exclusive Radiotherapy	died 5 months after radiotherapy
Fourth patient	80	G9P6A3	9	5.5	right lip	with metastatic lymph node	vulvectomy associated with radiotherapy	died 9 months after radiotherapy
Fifth patient	81	G8P8A0	7	3	left lip	without metastatic lymph node	vulvectomy	complete remission
Sixth patient	79	G4P4A0	12	4	right lip	without metastatic lymph node	vulvectomy	complete remission
Seventh patient	69	G12P10A2	6	3	right lip	without metastatic lymph node	vulvectomy	complete remission
Eighth patient	76	G9P8A1	4	3.5	left lip	without metastatic lymph node	vulvectomy	complete remission
Ninth patient	74	G9P9A0	7	4.5	right lip	with metastatic lymph node	vulvectomy	complete remission