



Case Report

Marjolin's Ulcer: Seven (07) Cases Studied in Brazzaville

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Abstract: *Introduction* Marjolin's Ulcer (MU) means all cutaneous malignancies developed on old unsteady scars. The general objective of this study was to report the MU cases in Congo with a literature review. It was a retrospective study conducted at University Teaching Hospital in Brazzaville from January 1998 to December 2017 (a 20-year period). The in-patients for cutaneous cancer histologically confirmed, arose on scarring skin lesions progressive were included. The epidemiological, clinical, histopathological and therapeutical variables were collected. Seven patients were identified. They represented 1.9% of skin cancers. The middle age was 44.4 years. The female predomination was noted with a sex ratio of 2.5. The burn scars was the etiological factor found to all our patients (100%). None of patients had an appropriate care of initial wound. The average time limit of the onset of MU was 34 years. The anatomopathologic examination revealed a squamous cell carcinoma to all our patients (100%). Carcinologic exeresis carried out to one (01) patient (14.28%). The amputation: three (03) patients (42.85%) and the disarticulation: two (02) patients (28.57%). The chemotherapy six (06) patients (85.71%). The decease arose five (05) patients (71.42%) and the entire remission reached to a woman patient (14.28%). This study confirmed the rareness and the severity MU; it also reveals the diagnosis lateness of a great death-rate. The care of quality of burns and chronic injuries, the awareness of patients together with the care givers training could help to improve the prognosis of this affection.

Keywords: Marjolin's Ulcer, Cancer, Scar, Burn

1. Introduction

Marjolin's Ulcer or scarring cancer is a form of a word which designates a developed malignant tumour on chronic inflammatory lesions or unsteady scars on the skin [1].

That is an infrequent affection representing 1% of cutaneous cancers [2]; and making difficult 0.7 to 2% of burns [3]. For the purpose of improving the MU in Congo, the objective, by means of this case series, to describe the clinical aspects, therapeutic and evolutionary of Marjolin's Ulcer.

2. Patients and Methods

It was a descriptive study, retrospective, conducted in University Teaching Hospital in Brazzaville in Congo, over 20 years period from 01st January 1998 to 31st December 2017

The population was formed of in-patients and/or followed in extern, in Medical Oncology Service of the University Teaching Hospital in Brazzaville for a skin cancer, developed on a dermatological lesion evolutionary and/or scarring. The patients

records with a histological confirmation of cancer and to whom of antecedent lesions (burn, cutaneous ulcer, inflammatory dermatosis) were noted and included to the site of cancer. The albinos matter and kids under 15 years were not retained.

The sampling was exhaustive from Cancers Register of Brazzaville. The latter is computerized data base which documents all diagnosable cancers in Brazzaville since 01st January 1996. The patients' records

identified from that information system have been operated in Medical Oncology Service.

The clinical and histological data were collected on an individual coded inquiry form. Thus, those clinical data were collected from hospitalization records supplemented to the need by discussing with patients or with their parents' consent. As for the histological data, they were drawn from the reports of anatomopathological examination reported in the medical records. The references about those reports allowed a new histological examination from the saved samples to the service of Anatomy and Pathologic Cytology of University Teaching Hospital in Brazzaville. The archived samples analysis respected the procedural stages of all histological examination, that is: the welcome and the reception, the macroscopy, the histological techniques, the microscopy photonic reading, the reports writing and filing.

The variables were:

1. Sociodemographic (age, sex, profession),
2. Anamnestics (cancer antecedents, age in the period of the primitive lesion, type and place of primitive lesion, stemmed from initial treatment, type of after-effect care,

call signs, latent period);

3. Clinics (localization, clinical aspect and tumour size, histological type, TNM classification).
4. Therapeutics (type of treatment) and evolutionary (evolution after care).

The data and treatment capture were made with the aid of Epi Info software version 7.2.1.

The survival calculation was made according to the direct method.

3. Results

Throughout the study, 412 cases of cutaneous cancers were recorded. Amongst them, 07 cases fulfilled to the criteria of our study population. The latter was formed of 05 women (71.43%) and 02 men (28.57%). The middle age: 44.4 years (extreme of 34 and 56 years).

3.1. Clinical Aspects

With all patients, the scar of thermic burn was constituted the initial lesion to cancer.

According to the severity, it was of 4 cases (57.14%) of burning of 2nd deep degree and 3 cases (42.8%) of burning of 3rd degree. The burnings were subjected to traditional treatment in 06 cases (85.71%) which 03 (42.85%) after medical treatment failure. The Table 1 explains the type and the outlet of primitive lesion treatment.

Table 1. Type and evolutionary methods of first lesions to 7 patients showing a Marjolin's Ulcer.

Code	Age (years) at first lesion moment	Type of first lesion	Care	Outcome' care
001	07	Thermic burn 3rd degree	Traditional	Unsteady scar
002	07	Thermic burn 2nd deep degree	Traditional	Atrophic scar and adhesion
003	10	Thermic burn 2nd deep degree	Traditional	Atrophic scar
004	06	Thermic burn 2nd deep degree	Traditional	Keloid scar and adhesion
005	07	Thermic burn 2nd deep degree	Medical	Retractile atrophic scar
006	15	Thermic burn 3rd degree	Medical then traditional	Unsteady scar
007	29	Thermic burn 3rd degree	Medical then traditional	Hypertrophic scar

The average latent period: 34 years (extreme from 19-44 years). Among the warning signs of the malignant transformation the abnormal and unsteady healing of the primitive lesion and the contact bleeding were found to all patients. Five (05) patients (71.43%) presented burgeoning masses and two (02) patients had chronic ulcerations.

Five (05) patients (71.43%) were touched with the lower limbs, as for the upper limbs two (02) patients (28.57%). The functional zones were affected to six (06) patients (85.71%). The clinical form was ulcer-burgeoning (Figure 1) to five (05) patients (71.43%) and ulcerous or superficial to two (02) patients (28.57%). The histologic type found in all cases was the squamous carcinoma (Figure 2).



Figure 1. Type of ulcer-burgeoning of Marjolin's Ulcer.

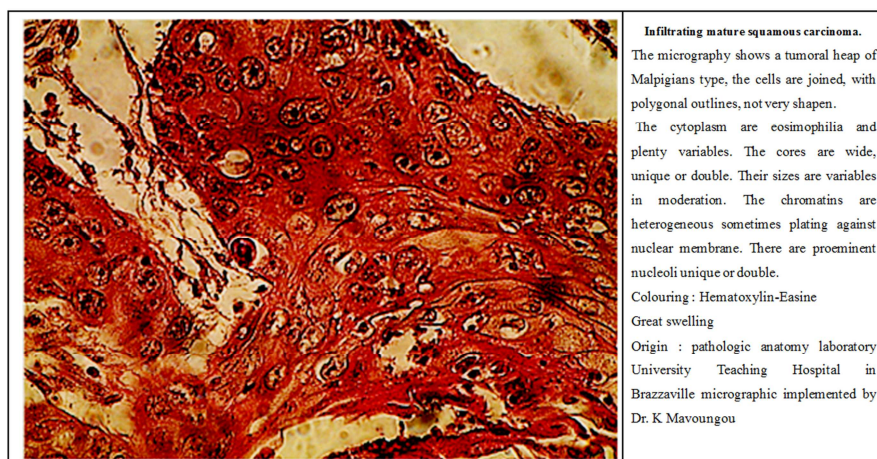


Figure 2. Histopathological aspect of a squamous carcinoma during Marjolin's Ulcer (Hex 40).

3.2. Therapeutical Aspects

The TNM classification, determined after the expansion record, is found in Table 2. The surgery was achieved in four (04) cases. It was a radical surgery with a limb amputing and a ganglionic cleaning in three (03) cases (42.86%) and a conservative surgery by a tumoral exeresis in one (01) case.

In addition, the chemotherapy was made to six (06) patients (85.71%) depending on adriamycin-cisplatin protocol (ADM 50 mg/m²/day in PIV to Day 1; CDDP 100 mg/m²/day to Day 1 in PIV) for financial assistance reasons

the total number of treatment did not exceed four (04) treatment a patient. None of treatment was made to a woman patient; either, none of patient benefited from a radiotherapy in our series.

3.3. Evolutionary Aspects

The patients' evolution after cancer treatment is found in Table 2. The death-rate was 71.42%. The actuarial survive to 12 and to 24 months after pathology diagnosis was respectively 57% is 14.28%.

Table 2. Classification and evolution of the Marjolin's Ulcer to seven (07) patients.

Code	TNM Classification	Protocol' Treatment	Evolution	Recession (months)
001	T4N2M1	ADM-CDDP Chemotherapy	Death	10
002	T4N0M0	Radical surgery	Lost of sight	6
003	T4N2M0	ADM-CDDP Chemotherapy	Death	13
004	T4N0M0	ADM-CDDP Chemotherapy + Radical surgery	Death	18
005	T4N2M1	ADM-CDDP Chemotherapy + Radical surgery	Death	17
006	T4N2M0	ADM-CDDP Chemotherapy	Death	4
007	T4N1M0	ADM-CDDP Chemotherapy + Conservative surgery	Living	24

ADM-Adriamycin; CDDP - Cisplatin

4. Discussion

The working about seven (07) cases of Marjolin's Ulcer had the aim to describe the clinical, therapeutical and evolutionary aspects. The methodological choice is focused on a retrospective study covering a 20 years period on account of the rarity of affection studied; within that choice, we have certain limits of study. It is from one hand the retrospective character of working which was unavailable with some information and to another hand, the reduced sample size which did not allow making an analytical study.

4.1. Clinical Aspects

All patients of our series developed a cutaneous cancer of burning scar [3]. The factors' risk are not well-known [4]. The Marjolin's Ulcer, often happens on burning scars [3], other etiologies as substances losses and chronic wounds [5], the chronic infections as osteomyelitis chronics [6], vascular

affections with stasis chronic venous [7] and the immunological causes [8-9] were demonstrated by some authors.

The report goes along with the first demonstrations of Marjolin's Ulcer on burning scarring lesions [10, 11]. The same report is alike to Nsonde Malanda [12] observations in the same option of study in 2008 and to those of diverse authors. The preferential seat of Marjorlin's Ulcer at level of fold limbs underlined Kassé and coll. [13] in his study.

Similar to the initial demonstrations of some authors, [13, 16, 17], all burnings before cancer were serious burnings, of 2nd deep degree or 3rd degree. None of Marjolin's Ulcer case on burning of 1st degree was not reported in our series and those of some authors [13]. The serious burnings could constitute a favoring factor. Most of burnings lesions happened in the first decade of the life [4]. The recourse to the health service in case of burn, although weak in our observations (42.85%) is more important than those cases

reported by Copcu [3] of 16%, by Kassé [13] of 8.95% and by Ouahbi [15] which did not observe recourse to the health services. The lack of suitable care of a serious burning with unsuitable topical use could have a carcinogen effect. In fact, according to the carcinogenetic theory of Marjolin's Ulcer, the burned tissue would produce carcinogen substances or would act like a co-carcinogen on an area which is exposed to diverse carcinogens (ultraviolet radiations, X-ray, chemical agents, topical produces) [13, 18, 19].

The latent period is from 2 to 3 decades, on average 34 years in our section and 39.2 in Nsondé-Malanda [12] survey. That long time limit of malignant transformation is to report by other authors in different areas of the world. Kerr-Valentic [20], reports an average time limit of 34.6 years. Kassé [13] and Oruc [21], report average respective time limit 27 years and 37.9 years Novick and coll. [22] they reported a longer time limit to 42.5 years in his series. Shorter latency period are related by authors like Shen [23] and Chalya [24], respectively of 13.42 and 11.14 years, which would raise an acute malignant transformation.

Our survey confirms bleeding high frequency if you touch the lesion among the warning signs of cancer [24-25]. The ulceration (28.57%), are less frequent than burgeoning masses (71.43%) in our contrasting study with Chalya [24] whom reports 53.6% of burgeoning masses and Bauer [26] whom record ulcerations to all patients. The pain, the more often concomitant of local suppuration, are evenly identified among the call signs of malignant change [24-25]. The ulcerous forms are customarily predominant [13, 15, 27]. Our survey relates a prevalence ulcer-burgeoning forms (71.43%), with cataclysmic hemorrhage notion leading to an emergency amputing surgery.

The squamous carcinoma was the histological type of all cancer during this survey, as recognized in the initial study of Nsondé-Malanda [12]. The cases of basal cell carcinoma scarrings, till now described, arise to the Caucasian subjects with predisposing phototype to the cancer or on radiodermatitis of scarrings [28].

4.2. Therapeutical Aspects

The surgical exeresis of tumour has only been achieved in one case (14.28%), this would clarify, by means of the advanced stage to the diagnosis and of the topography of the primitive malignant tumour; whereas it comprising the therapeutic means of choice for the squamous carcinoma to the beginning stage (local). Joudcar [16], Ozek [28] they applied it respectively 100% and 95% of cases. The radical surgery with limb amputing and ganglionic cleaning has been achieved nearly the half of cases in our series. An amputation rate of 62.6% within ganglionic cleaning once over two, is related by Kassé [13]. The systemic chemotherapy reserving to the inoperable metastatic carcinoma or to the voluminous tumours to lower the size before the surgery was operated to 85.71% of our patients. There are not many data on the use of the systemic chemotherapy in arterial intraoral on account of queries focused its efficiency [22]. There is no consensus on the use of the chemotherapy in the killers locally advanced or metastatic [22].

The large type of tumours the advanced stage of cancer justified the therapeutic choices about the patients of our section. A complement of extern radiotherapy has been achieved on the tumour site and the ganglionic areas of drainage [15]; a chemotherapy has also been prescribed to all patients with lung metastasis.

4.3. Evolutionary Aspect

The death-rate of 71.41% presented in this working is assimilating of the 75% told by Nsondé-Malanda [12]. Lower death-rates were examined by Kassé [13] and Chlihi [17], respectively of 9.2% and 11%. The inappropriate care of the initial lesion, the diagnosis delay and the advanced stage of the disease at the point of diagnosis contributed to the high mortality of our series cases.

5. Conclusion

The Marjolin's Ulcer mainly arise in the continuation of serious burnings which the cicatrization was abnormal and the care maladaptive. It is a squamous carcinoma in which the diagnosis is late. All chronic ulcer and stubborn must be biopsy in view of an anatomy pathologic study, in view of an early appropriate therapeutic care.

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